MENTAL HYGIENE

VOL. V OCTOBER, 1921 No. 4

THE SIGNIFICANCE OF THE CONDITIONED REFLEX IN MENTAL HYGIENE

WILLIAM H. BURNHAM, Ph.D.
Professor of Education and School Hygiene, Clark University

THE main facts in regard to the investigations of the conditioned reflex are now familiar to psychologists and psychiatrists, or in any case literature in regard to them is easily accessible (7).[1] The history of these studies need not be recounted; but the significance of the results for mental hygiene is not yet generally understood. The purpose of this paper is merely to suggest that many important educational and hygienic subjects are most clearly understood and perhaps most profitably investigated from the point of view and by the method of the conditioned reflex.

The importance of the scientific method is fortunately recognized in mental hygiene as well as in somatic hygiene; and as regards the method of the conditioned reflex, the great advantage of it lies in the fact that with this method one's feet are on the solid ground of scientific fact while unusual and mysterious problems are studied. Even if at present one's results are meager, the student has at least the advantage, to his own personal mental health and to the healthful development of scientific hygiene, that comes from the use of scientific methods in any subject; and the results have a well established value because they can be verified by any competent investigator who can repeat the conditions. The question may well be raised whether one of the first important things is not to determine how far the problems of mental

[1] The number in parenthesis refers to the bibliography at the end of this article.

hygiene may be explained by a few of the very simple fundamental principles of scientific psychology.

Theoretically, two great epochs in the development of the brain and mind can be distinguished. First, the development of the new brain, the neencephalon, or the brain cortex and its appendages; second, in the mental field, the development of associative memory. I say theoretically two epochs, because no dramatic beginnings of either the brain cortex on the one hand or associative memory on the other can be distinguished. But each appears in a gradual evolution. First in the selachians, the lizards, serpents, and the like, appear the beginnings of the new brain; and since that time in the animal series gradual development of the neencephalon has proceeded until we have the marvelous complexity of millions of interrelated neurones in the human brain cortex. The function of the central nervous system, we may say roughly, is to make protoplasmic connection between the receptor and the effector organs and to convert stimuli into reactions.

The significance of the new brain lies in the fact that its function is that of association; and the animal with this new brain has the ability to profit by its own experience, and what we speak of as the marvelous learning ability of the human being. For our present purpose, it is merely necessary to recall these fundamental facts, especially this ability to form associations.

Association and the Studies of Pavlov

The laws of the association of ideas have long been known; but only recently was it discovered that when stimuli of disparate character—for example, sensations of taste and sound—occur simultaneously, they, too, become associated and the laws of this association are in large part similar to the laws of association of ideas. This was a great discovery. The method[1] based on this fact promises scientific results in many baffling problems.

The discovery of the association of stimuli was made by Russian investigators, the chief of whom is Pavlov (32, 33, 34). This great physiologist has studied the secretion of

[1] For the technique see the literature, especially numbers 1, 2, 3, 25, 27, 29, 38, 40.

the salivary gland in the dog as affected by different stimuli, and developed a most elaborate technique for this purpose; but the results may be described in very simple language. We may take the classic example, a story often told, but still as wonderful as ever.

If you give your dog a piece of meat, a secretion of saliva occurs. The stimulus of the taste or odor of the meat is followed by the secretion of saliva as a response. This is an ordinary spinal-cord reflex. If, every time you give your dog a piece of meat, you ring a bell, after a while you can ring the bell without giving the meat and nevertheless there will be a flow of saliva. The sound of the bell has become associated with the stimulus of the meat and produces the same physiological reaction of the gland. Such an associated stimulus is called a conditioned, or associated, stimulus, and the reaction produced a conditioned reflex. In this case, according to Pavlov, the association is functioned by the brain cortex.

According to Pavlov, to note first his general view, the function of the higher brain centers is governed by the fundamental principle of the flow of nervous energy toward the point of greatest irritability; and as a matter of fact, this point shifts from one part of the cortex to another, and consciousness is, we may assume, the correlative of this shifting affectability. Pavlov, to be sure, puts this as a monist and makes consciousness itself a physiological phenomenon; but the general theory holds as well, and is quite as scientific, if we study this shifting focus of irritability as the mere correlative of consciousness, leaving the question of the relation between consciousness and the neural processes as a metaphysical problem with which we are not concerned. Thus Pavlov's picturesque metaphor may be adopted as translated by Morgulis (30):

"If it were possible to look through the skull, and if the region of optimum affectability in the hemispheres were lighted up, we might see in the thinking, conscious human being a bright spot of fantastically ragged outline, of perpetually changing form and size, migrating over the hemispheres, surrounded by more or less complete darkness hanging over the rest of the hemispheres."

In other words, this focus of irritability in the cortex, con-

stantly shifting from one part to another, we may naturally suppose is correlated with one's consciousness or one's special activity; and the other and relatively inactive parts are the correlative of what is commonly called the unconscious and our possible activity. That is, they are potentially related to consciousness; and when the focus of optimum irritability shifts to them, they in turn become correlated with conscious activity. Besides all this, however, we must suppose there is a process of shifting irritability and the fusion of stimuli not correlated with consciousness, but nevertheless forming the association of stimuli in conditioned reflexes.

We may, then, to put the whole matter with arbitrary simplicity, say that the brain cortex seems to be the seat of a constant ebb and flow of excitability. To use the word focus or center loosely, as Pavlov and Krasnogorski (24) do, we may say that certain centers are continuously the seat of greater or less irritability, and whenever stimuli from the different receptor organs come in to the cortex, they tend to associate themselves with those centers which are especially stimulated at the time. Or, in other words, the path of least resistance is the path which is already the seat of excitation or in the direction of such an excited center. Hence the great fact of association—that any stimulus, however indifferent, tends to become associated with other stimuli which at the given moment are active in the brain cortex.

A simple illustration used by Hough may make this condition clearer. We may liken the paths of increased irritability between nerve centers that are excited, or between new stimuli that come into the brain cortex and the centers that are in a condition of highest irritability, to the areas of increased intensity of illumination in different parts of a room lighted by electric lights. In the paths between the different lights there is a greater intensity of illumination than in other parts of the room. If we imagine a room lighted by such electric lights which are constantly shifting their position, we have the analogue of the shifting irritability in the brain cortex between different centers that are in a condition of excitation, and between stimuli that occur simultaneously.

Physiologically, the great significance of the conditioned reflex is that it furnishes an objective method of studying the

function of the cortex; psychologically, it is of importance as a method of studying association.

Pavlov's students have produced a large amount of data, the investigations having been made with dogs, monkeys, and children. A vast number of illustrations could be cited. If you sound a definite tone every time you give the dog meat, then that tone becomes associated with the original stimulus and produces the flow of saliva without the meat. Whistling is capable of association to produce the same conditioned reflex. Scratch the dog in a definite place every time he is fed, and a conditioned reflex is formed for the scratching. Even pain on a definite spot of the skin may become associated to produce a similar conditioned reflex. If we may trust these investigators, even place a piece of ice on the skin every time the dog is fed and, after a number of repetitions, you may merely place the ice on the skin and the flow of saliva will occur.

Now when a piece of meat is the stimulus that makes the dog's mouth water, it does not especially excite our wonder because we are familiar with such simple reactions; but when an entirely indifferent stimulus—a musical note, or the ringing of a bell, a piece of ice on the skin, or even a painful sensation, an electric shock, or the like—becomes associated with the meat and produces the same reaction of the gland, it certainly is remarkable; and possibly for every gland in the body and for every motor organ, similarly associated stimuli can produce specific reactions.

Of course the stimuli that occur naturally in an animal's environment have the same effect as those artificially supplied in the laboratory. This is why, in experiments on the conditioned reflex, it is necessary to take such great precautions —to use a special room, sound proof, the experimenter himself, in some cases, being in another room and operating the apparatus without being seen by the subject of the experiment, in this way isolating the special stimuli one is studying.

It has been found by Pavlov and his students that, either under the controlled conditions of the laboratory or under the ordinary conditions of natural environment, any stimulus whatever, from any receptor organ, however indifferent the sensation, may become associated with the biologically ade-

quate stimulus and produce the same effect—that is, produce a conditioned reflex.

The significance of all this is that Krasnogorski (23) in Russia, Dr. Mateer (27) at Clark University, and Dr. Watson (37) of Johns Hopkins, have found that in children as well as in animals similar conditioned reflexes can be formed, conditioned reflexes for the salivary gland, conditioned reflexes also for motor organs, conditioned reflexes, perhaps, for every gland and motor organ in the body.

Inhibition

Pavlov's experiments have thus made clear what the conditioned reflex is—namely, a reflex produced by any indifferent stimulus associated with a biologically adequate stimulus. In other words, if an indifferent stimulus is repeated a certain number of times simultaneously with the biologically adequate stimulus, an association is formed so that it comes to pass that the associated indifferent stimulus produces precisely the same physiological effect. If we could leave the whole matter here, it would be relatively simple; but the processes in nature are seldom simple; and in this particular case, we have yet to consider the other side of the whole matter—namely, the function of inhibition.

If one scratches a dog every time he is fed, then the scratching becomes a conditioned stimulus; that is, it occasions a secretion of saliva when no food is given. Now when a conditioned reflex of this kind has been formed, if, during the scratching, a new stimulus—say, for example, a tone that has been made a special stimulus—is added, immediately the scratching stimulus loses its effect. Also, the adding of another unusual tone to a usual one inhibits the salivary reflex, the stronger the tone, the greater the inhibition. Pavlov and his students have made extended investigations of the different forms of inhibition, and they find that such a simple reflex as the secretion of saliva is influenced by innumerable factors, not only by the more intense stimuli, but by any stimulus from the environment, by any sound, however weak, the flickering of a light, a shadow on a window, or even a draft of air or the like.

Since the term inhibition has often been used vaguely and

loosely, it is well here again to approach the subject from the objective point of view. Following Sherrington (35), we may sum up briefly the significant points. The first is the fact of the existence of inhibitory nerves and the inhibitory effect on the muscles of inhibitory summons from the nerve centers.

In 1846 Weber discovered the inhibitory action of the vagus nerve on the heart muscle. Later Pflüger discovered the inhibitory nerve that passes to the muscle of the wall of the intestine. Later other inhibitory nerves were discovered in invertebrates, but no such nerves to skeletal muscles in man could be discovered. These inhibitory nerves were efferent nerves from the nerve centers; but, as Sherrington has pointed out, it is not necessary to have such nerves directly to the muscle in the case of skeletal muscles in vertebrates. The muscle contracts only on behest of the motor nerve center.

This trustworthy scientist has shown that inhibition is a positive function, and he draws a significant parallel between stimulation on the one hand and inhibition on the other, in part as follows: Although the processes of excitation and of inhibition are polar opposites, and although one is able to neutralize the other, there are correspondences between reflex inhibition and reflex excitation. Both undergo fatigue. Both outlive their stimulation periods for a short time in proportion to their intensity. The latent period of both is about the same. Many of the time relations of the one resemble those of the other.

That the stimuli of the environment have power to excite this or that form of activity has long been known. That, on the other hand, these stimuli have power to arrest or inhibit such activity has been worked out only recently. The intimate nature of the reflex inhibitory process remains obscure; but, as Sherrington has described it, started by nervous excitation, reflex inhibition seems, detail by detail, to present an exact counterpart to nervous excitation. "Often the two processes meet and neutralize each other according to dosage, in appearance as do acidity and alkalinity."

"In all these uses of inhibition we see it as an associate of, and a counterpart or counterpoise to, excitation. Whether we study it in the more primitive nervous reactions which simply interconnect antagonistic muscles, or in the latest ac-

quired reactions of the highly integrated organism, inhibition does not stand alone, but runs always alongside of excitation. In the simple correlation uniting antagonistic muscle-pairs, inhibition of antagonist accompanies excitation of protagonist. In higher integrations, where, for instance, a visual signal comes by training to be associated to salivary flow, the key of the acquiring of the reflex and of its maintenance is attention. And that part of attention which psychologists term negative, the counterpart and constant accompaniment to positive attention, seems as surely a sign of nervous inhibition as is the relaxation of an antagonist muscle, the concomitant of the contraction of the protagonist. In the latter case the coördination concerns but a small part of the mechanism of the individual and is spinal and unconscious. In the former case it deals with practically the whole organism, is cortical and conscious. In all cases inhibition is an integrative element in the consolidation of the animal mechanism to a unity. It and excitation together compose a chord in the harmony of the healthy working of the organism." (35, p. 309.)

In the field of the conditioned reflexes several forms of inhibition appear. Associated stimuli, on account of their unstable character, are especially liable to inhibition. Any new stimulus is likely to inhibit whatever conditioned stimulus is active; and then again any new stimulus is likely to inhibit the inhibition. Thus the whole matter of association, both in our coördinated activity and in our thinking, is extremely complex. Just as, in the case of the muscles, constant interplay of stimuli and of inhibitions occurs, so in the mental field we must conceive an equally complex interplay of associations and inhibitions, and a continuous action and reaction of stimulation and inhibition, in the conditioned reflexes and systems of conditioned reflexes that are active in any individual who has had experience—in the child after the first year and a half or two years, perhaps, of life, and in much more complex fashion in later years.

The inhibitory effect of the environmental stimuli referred to above is gradually to wear out the conditioned stimuli and the conditioned reflexes. Hence, as all the investigations show, the conditioned stimulus needs to be continually re-

enforced by association with the unconditioned or original stimulus; and when such repetition does not occur, the conditioned reflex soon disappears. This dying out of the conditioned reflex is thus to be looked upon as a form of inhibition, and concrete illustrations are plentiful.

Thus, while the first form of inhibition is the definite and sudden extinction of a conditioned reflex by inhibition of the associative stimulus by some new stimulus of sufficient intensity, the second form of inhibition is the gradual wearing out of the conditioned reflex by the inhibitory effect of the ordinary stimuli of the environment.

It should be noted that this condition of inhibition in turn is very unstable and easily removed by the occurrence of other stimuli. If, when a conditioned reflex has died out for lack of reënforcement of the associated stimulus with the original stimulus, some new stimulus suddenly occurs—for example, the light of an electric light thrown into the dog's eyes, a stimulus that has no relation to the original stimulus—it acts at once as an inhibition of the inhibition; that is, the sudden flash of the electric light removes the inhibiting stimulus and reëstablishes the conditioned reflex. One or two illustrations given by Anrep (1) may be cited:

"After repeated experiments with Dog 4, when the differentiation of the second sound had been firmly established [so that no secretion was expected], something irritated the mucous membrane of the animal's nose and the dog sneezed. Three minutes later an inactive note was sounded, and, instead of the zero anticipated, 28 drops of saliva were registered. No secretion was caused by the sneezing, but the irritation produced inhibited the inhibition."

"In another case, when experimenting with Dog 4, a large fly flew into the room; this very slight noise was quite sufficient to inhibit the inhibition and to cause the secretion of 15 drops. If a metronome or a simple bell is set in action during the sound of the inactive tone, one gets a still greater effect."

Thus the Russian investigators have shown the significance of inhibition for the nerves as Sherrington has for the muscles—i.e., that in all development and training of the central nervous system, inhibition is as important as response. Accord-

ing to Krasnogorski, stimulation and inhibition are in a certain sense the two halves of one and the same activity of the nervous system. And he maintains that in the conditioned reflex we have an almost ideal method of investigating the process of central inhibition in children.

We may simplify the complexity of the whole matter by a general statement such as that given by Anrep (1):

"Each extra stimulus in turn inhibits the conditioned activity of the brain, superimposing itself on the process it encounters in every part of the same. If it meets with excitation, it inhibits the excitatory process; if it meets with inhibition, it inhibits the inhibition."

I have referred to the discovery by Pavlov as remarkable, but, like many other great discoveries, it was in one sense very simple. For thousands of years nature has been forming conditioned reflexes and inhibitions. Any observer of children and animals can give examples.

In case of one of our Worcester dogs who is fond of visitors, the ringing of the doorbell has become associated with the coming of callers, so that whenever the dog hears the bell ring, he comes tearing into the house. The housemaid has discovered that when it is necessary to lock the dog up, the ringing of the bell is a convenient method for bringing him into the house. The presence of callers was the original stimulus, coming into the house the response. The ringing of the doorbell is the associated stimulus. It produces the same response—coming into the house—as a conditioned reflex.

A conditioned reflex is often established by shock or by a single intense association between the original stimulus and the associated stimulus. This can frequently be observed in the ordinary behavior of animals. Watson cites the well known case of the horse frightened in a definite spot and afterwards always showing fear when passing that particular place.

From the training of animals we have noteworthy examples also of the power of inhibitory stimuli. Kallisher has given so-called tone training to different animals. With monkeys, by giving them food with a certain definite tone and withholding it with other tones, he habituated them to grasping

the food only at the proper tone, the one associated with the giving and eating of the food. In another case, a Boston terrier was taught to sit in his chair with meat placed before him until permission was given to take the food. Even when the dog's favorite food was placed directly under his nose and he was left in the room alone, he would not touch the food until his master returned and permission was given. In their natural environment also scores of inhibitions in animals are developed.

A great part of the training of animals consists in the development of conditioned reflexes, especially, perhaps, in the acquisition of the more unusual tricks. A friend of mine trained his dog to sneeze at the word of command, first rubbing his nose and causing the unconditioned reflex of sneezing in response to this irritation, then repeating the word of command with the rubbing until finally the dog would sneeze at command without the mechanical irritation. If in this case the sneeze was a true reflex, then we have a conditioned reflex, the word of command being of course the associated stimulus. More commonly the training consists largely in the development of inhibitions. The reader can add illustrations from personal observation.

We are specially concerned with the development of conditioned reflexes in children. The significance of inhibition in children will be considered later in connection with the school. Here it may be added that several kinds of inhibition are distinguished. Morgulis (30, p. 372) enumerates some of these as follows:

"There are several kinds of internal inhibition. Waning conditioned reflexes, due to a repeated application of the conditioned salivary stimulus without the aid of an unconditioned stimulus, is one kind. Another kind is the delayed reflex which appears if the conditioned stimuli are regularly followed by feeding a few seconds or even minutes after the conditioned stimulation has ceased. Conditioned inhibition is likewise a form of internal inhibition arising when an irrelevant factor is added to the conditioned stimulus, the combination not being reinforced by feeding. In such a combination the conditioned stimulus is quite ineffective, but alone it exerts the usual influence. The process of differentiation and

concentration, already described above, represents a still other type of internal inhibition—the inhibition of differentiation. Furthermore, it is a very common and very important occurrence that an inhibition checks another inhibition, the result being a reactivation of the inhibited reflex."

Learning, Fatigue, Growth

From the results already obtained, it is apparent that perhaps the most deep-seated significance of stimulation and inhibition in the production of conditioned reflexes lies in their relation to learning, fatigue, and mental growth. Learning in the broad sense—i.e., adjustment to a new situation—means the association of stimuli and inhibitions in the production of a system of conditioned reflexes. It means the inhibition or breaking down of reflexes that do not prove useful. It means remembering and forgetting as well.

What is called brain fatigue, even though its chemical cause be the toxic products produced by functioning neurones, is perhaps usually due, as Krasnogorski thinks, to some general inhibition—i.e., an inhibition so strong that it spreads over the whole cortex. To remove the fatigue, all that is necessary is a stimulus sufficiently strong to remove the cortical inhibition. The physical mechanism by which the removal of the inhibition is effected may be complex, involving the autonomic nervous system, the secretion of endocrine glands, and the like, but from our present point of view the essential factor in the process is the associated stimulus that inhibits the inhibition.

Again, what is sometimes called the plasticity of the nervous tissue—the ability to form, to retain, and to break down temporary associations—conditions mental development. Without this plasticity, we have that arrest of development we call feeblemindedness if it occurs before the age of fifteen or sixteen, dementia praecox, senescence, or the like, if it occurs after that age.

The different stages of decline in mental age, the arrests that occur in senescence, have not been systematically studied. But when an individual can no longer form and break down conditioned reflexes and habits (systems of conditioned re-

flexes), he is senescent, whether his chronological age be twenty-five or seventy-five. And one who can still form the temporary associations and adjust to the new situation is still young though his chronological age be ninety. The mental age, not the chronological age, is significant in senescence as well as in adolescence. The great aim of mental hygiene is to preserve this plasticity of the nervous substance.

The problem how this plasticity may be retained I am not able to solve. Its discussion would involve the study of other factors, such as the mental attitude and especially the proper functioning of the endocrine glands and the autonomic nervous system. The significance of the mental attitude to mental health is suggested by everyday observation as well as by laboratory studies of the higher mental processes. The normal functioning of the autonomic nervous system has been shown to be vital and fundamental to healthful mental development. But all this is another story that cannot be told here. The writer's task is the far simpler one of suggesting some of the practical applications of a knowledge of the conditioned reflex in education and mental hygiene.

The Conditioned Reflex in the Child

The power to form conditioned reflexes occurs at a very early age in the child. According to Krasnogorski (23, 24), this power of association appears in the first year of life, and observation and the studies by Dr. Mateer (27) indicate that it appears at a still earlier age. Probably in regard to a few things it appears in infancy; and yet, as Krasnogorski maintains, it is not developed until during the second year, perhaps not until the child is about two years of age.

The mechanism of conditioned inhibition also, according to Krasnogorski, occurs at the end of the first year of life, and this, according to him, marks the stage when the child can be really educated. Naturally there are individual differences in the time of development, and in the case of feeble-minded children the conditioned inhibition can be formed only with great difficulty or not at all, and such associations have weak inhibitory effect and are easily destroyed. In normal children, however, in the first year or two of life, a

vast number of conditioned reflexes and conditioned inhibitions are formed by the ordinary environment and by the training given by parents and nurse.

Obviously in the case of children the different learning types appear in the development of conditioned reflexes and there are rather wide individual variations in the ability to form associations. The results given by Dr. Mateer (27) are perhaps representative:

"It may be interesting to note that no child over two years of age needed more than eight trials, while none under that age used less than seven, none under three years needed less than six, while the minimum number, three, was all that were required by a child in the fourth year. Out of the fifty children, regardless of age, ten needed only three trials, eleven needed four trials, eleven used five trials, while only seven needed six; five needed seven, four needed eight, and two, nine trials."

The mechanism of the conditioned reflexes in the child varies from that of the animal in several respects. The first characteristic in the child is the extreme rapidity of its acquisition. In the case of the normal child, it is enough to let the effect of any stimulus occur in connection with the opening of the mouth from two to ten times for the temporary association to be formed and for the associated stimulus to call forth independently the opening of the mouth. Further characteristics of the conditioned reflex in the child are the high stability of the association formed and the ease with which it is broken down. The newly formed conditioned reflex in case of a normal child lasts for a long time, but at any time it can be quickly broken up and again reëstablished.

For the extremely interesting results of Krasnogorski's experiments on memory reflexes, and the mechanism of storage and discharge in children, and the technical methods used by Dr. Mateer, Watson, and Lashley in this country, reference must be made to the literature (26, 7). We are concerned merely with the simplest outline of the results of the study of the conditioned reflex and some of the wider relations and applications suggested.

In the case of a child, all the conditioned reflexes of the various kinds produced in animals may be produced and many

others besides, apparently. The whole of the child's education from the early years is largely the development of conditioned reflexes from the stimuli of the environment. These are the reflexes especially significant for health.

The infant is conditioned to react to certain specific stimuli, certain sounds of the voice of the mother or the nurse indicating the time for nursing, the sight of certain places indicating the time for a nap, the sight of the bathroom and toilet indicating the time for the bath or the like, and later the sight of cup or spoon or the like indicating the opportunity for food or drink; and again the child is conditioned to certain forms of behavior by the petting or indications of favor and esteem of mother or nurse or playmates, and so on in a hundred ways. Still later, by the training of social groups, the child is conditioned to all the rules of the game—habits of politeness, the conventions of society, etc. Naturally the earliest and most important group of conditioned reflexes is developed in connection with the person and behavior of mother or nurse. As Kempf (22, p. 76) has expressed it:

"The mother's voice, facial expression, color of hair, odors, eyes, skin, the shape of her mouth and conformations of teeth, her neck, bosom, arms and hands, touch and step, postural tensions, irritability and goodness, habits, ideals, and eccentricities, are all stimuli that come to have a potent autonomic-affective influence upon the child through being *frequently, simultaneously* associated with the giving of nourishment, physical comfort, and relief from fatigue, loneliness, and anxiety. This continues as an almost incessant combination of stimuli, varying somewhat as the mother's affections (love, anger, sorrow, shame, pride, jealousy) determine her reactions to the infant."

Thus conditioned reflexes are formed in children at a very early age, and by the time they come to school they are bundles of such reflexes. These reflexes are formed in the most commonplace and unsuspected situations, in an ordinary environment as well as in the laboratory. Usually the association is produced by many repetitions. It may be produced by shock. A simple concrete case will serve as illustration.

While a young child was lying in bed, a curtain at one of the windows snapped up suddenly with a loud noise, and the

child began to cry. The child was quieted, but the next time he was put in this room, he at once looked up at the window where the curtain was and again began to cry. The father was a physician and removed the child from the room. Had he not done so, a permanent conditioned reflex would very likely have been developed, so that the sight of the curtain would every time have made the child cry as a result of the conditioned reflex set up by the original shock, and his parents would have wondered why in the world the child was afraid of a curtain.

Simple incidents like this are especially instructive because they show that a conditioned reflex may be developed by a single experience, that what is a shock to the child may be the most commonplace and familiar experience to an adult. In this case the cause of the crying was obvious. In a hundred cases it may be unknown. Many of the cases of fear due to shock in early life are probably cases of this kind, and of course special care should be taken to avoid the formation of such reflexes.

The School

The school, of course, especially those schools in which the emphasis is placed on training rather than instruction, makes a systematic attempt to develop conditioned reflexes helpful for the tasks of life. The child, however, when he comes to school, is, as already suggested, a bundle of conditioned reflexes, some healthful and some unfortunate if not pathological, due to training in the home. Watson considers this training so vitally significant that he says: "I believe I could make or break a youngster in the first four years of its life; that is, without abusing it, starving it, or otherwise being cruel to it, I could twist, thwart, over- or under-develop its instinctive and emotional life to such a degree that it would never recover from it."

According to Watson's view, most of a child's behavior is acquired by training in the early years, and the instinctive and emotional mechanism is relatively simple. This of course means that the child's behavior is largely determined by conditioned reflexes. If this be true, then the tendency of stimuli to inhibit such reflexes and the various forms of inhibition of conditioned stimuli and conditioned reflexes, which Pavlov's

studies have shown in such abundance, must be a significant factor in the child's life. Even by the time the child enters school, he is, from a physiological point of view, far from being unsophisticated; and, as regards health, even at this early age he may be handicapped by a large number of unfortunate inhibitions.

Formal education is largely made up of inhibitions. Necessarily this is so. The child's social education is chiefly a matter of acquiring inhibitions. The first thing in the social education of a child is to teach him to talk. The second is to teach him not to talk. The first scholastic education is to teach a child to read and to read every word and every sentence of his lesson; the later training of the scholar consists largely in teaching one what he should not read, and training one to ignore the unessential. To inhibit or delay reaction is the mark of the educated man.

Thus it comes to pass that sometimes repression goes too far, and an abnormal and exaggerated habit of repression is developed. This may be distinctly injurious to a person's character, and probably in not a few cases the most serious handicap to one's efficiency is such a habit of repression or inhibition.

Such inhibitions usually being unconscious, the individual himself may not know what it is that handicaps him; and yet in thousands of cases the boy and girl as they come out of school are less efficient and less able to do things in a clear-cut and thoroughgoing fashion than when they enter school as children.

If Watson's conception be correct, then the importance of a thoroughgoing mental examination at school entrance is emphasized. With twenty or forty children, each a bundle of more or less active conditioned reflexes developed in homes of diverse character where children are subjected to many different stimuli, how can a teacher be supposed to act intelligently in discipline and instruction without knowing all that can be learned by expert examination in regard to the results of home training? Plenty of time should be taken for such an examination, and especially important in throwing light on the questions involved would be the study of the spontaneous behavior of the children by a competent expert.

Such thoroughgoing examination of individual children will show that inhibitory conditioned reflexes exist likely to handicap the child not only in school work, but in the development of habits of mental health. We usually call these attitudes, habits, fears, peculiarities, and the like.

With the innumerable repressions and exhortations from childhood—not to do this and not to do that, and to avoid certain forms of speech and certain forms of behavior—it is no wonder that by the time manhood is reached, or perhaps long before, a great accumulation of such inhibitory associations has been acquired; and this more than anything else is the handicap of many individuals. Years ago Dr. James, in his classic paper on the hidden energies of men, gave many examples of men whose efficiency had been greatly increased by some striking emotional experience—a conversion, a love affair, a great shock, or the devotion to a new cult or what not, something that raised the individual to a higher level of activity, and greatly increased his efficiency, so that thereafter he was able to live on a higher plane as a result of the hidden sources of energy that were tapped by the emotional experience, as James expressed it. Probably in many of these cases the real psychology of the individual's improvement was to be found in a removal of inhibiting associations, a release from this result of repressive education, the inhibiting accumulation of a lifetime.

Many most brilliant men and women have their activity limited and their efficiency seriously retarded by such conditioned reflexes, and the remarkable results that occur when by proper training or by shock these conditioned reflexes are broken up and these inhibitions removed have been demonstrated in many cases.

Of more serious inhibitions we have plenty that are more or less pathological. In the experiences of "shell shock" throughout the war, we have innumerable illustrations of such inhibitions. The frequent cure of "shell shock" by a shock of some kind illustrates the way in which such inhibitions can in turn be inhibited by other stimuli if they are sufficiently strong, while the cure of such cases by training, on the other hand, shows how, by many repetitions, inhibiting stimuli and associations may be developed.

The psychiatrists have long recognized that in many cases of nervous and mental disorder the most serious trouble is an inhibition of some kind. Just as one's intellectual ability is often arrested by unfortunate inhibitions—and these may be so deep-seated as to condition the difference between the ordinary man and the man of genius, as Bateson has suggested—so certain inhibitions may be so serious that their presence or absence means the difference between normality and serious mental disorder. Hence, as psychiatrists recognize, the important thing is some means of removing injurious inhibitions.

From the point of view of association and the conditioned reflex, the remedy for unfortunate inhibitions—whether conditioned reflexes, associated ideas, mental attitudes, fear, or what not—may be stated in general terms by saying that it is always possible to remove the inhibition by associating a new stimulus of sufficient intensity with the unfortunate association—that is, to inhibit the inhibition by a new and stronger stimulus. The new reflex or association may be established by shock, or by many repetitions, or by constructive activities in relation to the object of fear or the like—that is, by establishing a system of conditioned reflexes or associations.

This whole matter of inhibition and the widely related aspects of it should, in the light of the results that have been obtained, be studied as broadly and considered as generally as the law of stimulation and what we are apt to look upon as positive association.

Psychoanalysis and the Conditioned Reflex

For psychoanalysis in the technical sense as employed by the psychiatrist in his clinic, or in the lay sense as practiced by a preacher in confession and the like, or by the teacher like Socrates, or by the individual thinker like St. Augustine, or Jonathan Edwards, in meditation, or by the individual patient, as advised to-day by some psychiatrists—for all these, the method of the conditioned reflex has an important contribution. The significance of this has already been suggested.

It is well illustrated in our social relations, or the affective situations of the individual in relation to other individuals and to the social group, especially when we consider the asso-

ciation of ideas and mental attitudes as well as the association of stimuli. Dr. Kempf does not put it too strongly in the following passages:

"The *conditioning* capacity of the reflex is of the utmost importance in determining our selections and aversions throughout life, such as mating, habitat, friends, enemies, vocations, professions, religious and political preferences, etc. We can understand now how we come to have an avertive prejudice for one person, experience, or object because it has qualities that happen to be similar to some of the qualities that another person, object, or experience had that caused us to feel pain, fear, or embarrassment. Similarly we prefer those new things that have some of the qualities of old things that were pleasing and invigorating stimuli."[1]

"It seems naïve to urge that every person, friend or enemy, is essentially a compound stimulus that varies more or less in its gratifying or distressing influence upon an individual, but the stupid resistance to psychoanalysis and the adjustments of repressions makes it necessary. The conditioning of fear, hate, love, shame, sorrow, hunger, occurs without our conscious choice that these affective-autonomic functions should or should not prefer to have or to avoid certain objects, persons, or situations. These mechanisms may often be obscure, but in one respect they are consistent. They are *always determined by experiences.*"

Every one, perhaps, at some time has noticed the peculiar character of his own action or the strange things he finds himself sometimes saying. Many of us have comforted ourselves by the clever explanation given by Oliver Wendell Holmes, who states that such things are to be explained only on the supposition that we have a mental blind spot which sometimes functions so that idiotic ideas of any kind whatever may become associated. Probably many of these cases are to be explained as obvious conditioned reflexes.

We can sometimes detect these mechanisms in concrete and trivial matters, as well as in those more serious referred to by Kempf, but the ordinary person is not likely to notice them.

[1] See The Tonus of Autonomic Segments as Causes of Abnormal Behavior, by Edward J. Kempf. *Journal of Nervous and Mental Disease*, Jan., 1920, p. 15.

A classical case was given by Betz from his own experience, reported in substance as follows: Riding in a street car one day, Betz saw a man settle himself comfortably with a cigar in his mouth. Just then a slight accident jolted the car and threw the cigar out of the man's mouth in a ludicrous fashion which caused Betz to smile. Some days afterwards, he met a stranger on the street and found himself involuntarily smiling. Then he tried to recall the man, whose face had a familiar look, and the involuntary smile enabled him to do so. The man was the victim of the street-car incident that had caused his amusement.

Here the smile was an ordinary example of a conditioned reflex. The personal appearance of the man seems to have had no essential relation to the humor of the situation; it would have been as ludicrous in the case of any other man. But the appearance of this man became associated with the original situation as a conditioned stimulus and brought the same smile.

Instances of this kind, in which a part of a situation conditions the reaction to the whole of it and also brings about a recall of the original circumstances, are of everyday occurrence. The unfortunate social possibilities in a case of this kind are obvious. Hundreds of people, especially school children, have gotten into trouble by smiling at the wrong time; and the schoolboy is likely to be entirely innocent and quite unaware of the reason for his smiling. Innumerable occurrences in the schoolroom, misinterpreted both by teachers and by amateur Freudians, are probably cases of this kind. The point of view of the conditioned reflex gives a simple explanation of much bizarre behavior and ridiculous speech.

Without attempting any critique here of modern methods of psychoanalysis, one point is so clear that all competent specialists will perhaps agree in regard to it—namely, this hygienic necessity of removing unfortunate inhibitions; and, so far as clearing the field and removing obstacles to healthful mental development goes, it is perhaps not too much to say that the aid given the patient by psychoanalysis in the removal of such inhibitions is the most important benefit rendered.

Without technical language or details, the essential psychology of the mode of procedure may be simply and briefly illustrated in the case of the universal inhibitions of fear.

Probably everybody, especially every child, is handicapped by inhibitory fears of some kind. Such inhibitions may be illustrated by almost any of the common, but often grotesque, fears of childhood. For example, a little girl had heard certain incendiaries referred to as firebugs and had listened to a newspaper account of a terrible fire which, according to the report, was set by a firebug. She thus gained the idea that there were certain insects that set fire to houses, and naturally enough she became afraid of these incendiary bugs, lest her own house might be set on fire. To a child's imagination, an insect like this that walketh in darkness and can effect such tragic results naturally became a secondary cause of fear. Usually a child conceals such fears. If discovered, the method of removing them is simple. But concealed and repressed, a fear of that kind or the inhibition it leaves is liable to cause injury for a lifetime, as every psychiatrist knows. Dr. Rows, of London, told at Bloomingdale[1] of a case of nervous breakdown and insanity in a woman of thirty-five which was traced back to a fright the child received at the age of five from the bogey stories and behavior of her nurse.

Let us take another concrete case: Charles Lamb, in his well-known essay on *Witches and other Night Fears,* says of himself: "I was dreadfully alive to nervous terrors. The nighttime and solitude and the dark were my hell * * *. I never laid my head on my pillow, I suppose, from the fourth to the seventh year of my life, so far as my memory serves in things so long ago, without an assurance, which realized its own prophecy, of seeing some frightful specter." The form of his visitations he attributes to the picture, in Stackhouse's *History of the Bible,* of the raising of Samuel by the Witch of Endor.

Whether the morbid attitude be of long standing or recent, the psychology of the remedy is briefly as follows: One brings the fearful idea clearly to consciousness—lowers the threshold for the idea, as the psychologist puts it. In other

[1] In a paper entitled *The Biological Significance of Mental Illness,* read at the Centennial Celebration of Bloomingdale Hospital, May 26, 1921.

words, one brings the child definitely to face the cause of its fear, just as the horse trainer, with soothing words, leads the colt up face to face with what has frightened it. Then one associates a rival stimulus with the fear-inspiring object or idea. In the case mentioned, one would show the child, perhaps, the grotesque and comic aspects of the Stackhouse picture, or convince him that it was nothing but a drawing on a piece of paper similar to what he himself could make—that it represented at most an imaginary object, a make-believe representation. By such a discussion, rival stimuli would be associated with the picture, and after a few conversations of this kind, these associated ideas would inhibit the fear; amusement or orderly thinking would take the place of it. It is always possible to associate a wholesome thought or attitude with the original stimulus as a rival stimulus that shall in turn inhibit the inhibition.

The practical problem, then, is how to form some association with the general attitude of worry which so many people have, so that as soon as this attitude becomes nascent, it may at once be inhibited by some healthful association. That this can be done and actually is done in many cases we have evidence from many individuals of different classes in society, diverse interests, and varying degrees of education. Apparently it may be any one of a number of things, if only the association be made strong and permanent.

The mere knowledge of the fact that violent change of stimuli causes the fear, this itself may become an associated idea that tends to inhibit the fear. The individual says to the fear-producing situation, "I know the secret. 'I have your number.' With a little easily made apparatus I could do the trick myself." If in no other way, this reduces the fear by the fact that it represents so much coördinated thinking, which, like coördinated action of any kind, is a universal remedy.

Dr. Crile and Dr. Cannon have borne testimony to the fact that in their own cases, since learning the seriously injurious results that come from worry and anxiety, they are able to meet the trying situations of life with greater equanimity. As Crile has put it, the thought of the injury that comes from these emotions is itself a protection against them.

Pathological

On the basis of pathological heredity and often, apart from this, merely from unfortunate environment and bad training and the constant interference of over-anxious parents and nurses and others, unfortunate and pathological reflexes are sure to be produced. Thus the work of education in the schools as well as in the hospitals often becomes, to a large extent, the inhibiting and breaking down of injurious reflexes, or, to put it more concretely, the building up of healthful conditioned reflexes and habits or systems of such reflexes that may inhibit injurious ones. Multitudes of examples could be given if there were time. A few miscellaneous illustrations will suffice.

According to Ibrahim (16, p. 39) the phenomenon that a child shows when he holds his breath is a conditioned reflex of a typical kind. Because of a neurotic temperament or the like, in a fit of passion, perhaps, the child holds its breath once, and this is enough to cause a conditioned reflex. Thus, whenever the child thereafter falls into a fit of passion and crying, the crying becomes a conditioned stimulus for stopping the respiration, and always afterwards, every time the child cries in a fit of anger, he will hold his breath in the same way. This explains a large number of troublesome cases in the behavior of children. It is an easy matter to allow such a violent reaction or inhibition of a normal function to occur, and the association is so intense from the circumstances of the situation that thereafter the child is conditioned, by the act of crying or the sound of his own voice or the like, to an inhibition of the function of respiration. It is interesting to note also that a usual method of cure is to throw water in the child's face or in some way give a shock that will inhibit the inhibition.

In another case cited by Heilbronner (16), a child has to pass by a dog's kennel, when suddenly the dog rushes out barking, without, however, being able to do any harm because it is chained. The child cries, tries to run away, falls, and remains crying and trembling, and is calmed again after a longer or a shorter period with or without any clear recollection of what has happened. The event for the time being remains without any result; but it is noticeable that the child

attempts to go around this spot in which the experience occurred. It is thought unpedagogical to permit this timidity; the child is forced to walk again by the kennel; but before it comes into the vicinity of the dog, the attack of fear recurs. Further attempts at education in this direction are given up, but at every opportunity brothers and sisters or playmates tease and laugh at the child for his timidity. The result is a new attack. This occurs more and more frequently and under continually varying conditions with each unpleasant impression—a difficult school task, the denial of a wish, in case of very slight physical indisposition, and finally even on occasion of pleasant events and a pleasant surprise or the expectation of such.

In this example we can trace the way the circle of effective stimuli keeps growing wider—from the repetition of the original situation to the mere mention of the same, and from this to unpleasant situations in general, and finally to events that have nothing more in common with the original conditioned stimulus. Training in action in relation to the cause of fear and the building up of inhibitory associations would have removed this fear. Rasmussen has reported a case that illustrates this.

"When R. was about three years old, she was frightened when an alarm clock, which she had never heard before, suddenly went off. She cried violently. But when a light was made, and she could see the alarm clock and was allowed to make it go off, her fright disappeared, and she quietly submitted to having the light extinguished. All she said was: 'The little clock must not say that, because then R. will be sorry.' In the time that followed, she was not frightened when the clock occasionally went off."

Among a large class of people numerous conditioned reflexes for drugs, patent medicines, or even special kinds of food are often developed. The child cannot get along without his special food or medicine, the adult is the slave of certain definite drugs, and the like. Bad as the drug habit, in this sense, is, nevertheless drugs often seem to have an hygienic effect because they act as associated stimuli to healthful conditioned reflexes.

In many cases the cure seems to be the result, not so much

of the remedy given, as of the form in which it is applied. As Heilbronner points out, the psychiatrist may fail in his efforts until he decides to resort to some measure which, as the patient says, has always helped, a remedy recommended, perhaps, by some old shepherd, or an electrical treatment, or the like. As soon as the psychiatrist adopts this method—that is, applies the associated stimulus that has become effective in producing certain healthful conditioned reflexes—the cure is effected.

Conclusion

We have discussed merely one or two fundamental aspects of the conditioned reflex. A great many other things must be omitted. The remarkable possibilities of this method, and the opportunity it affords for studying some of the unusual, bizarre, and mysterious phenomena of human behavior, are obvious upon a little reflection. Whenever something unusual and even something apparently supernatural occurs in the reaction of the psychophysic organism, it is well to approach the matter from the point of view of the conditioned reflex before resorting to speculation or invoking the aid of spiritualism, Christian Science, or occult theories of any kind that cannot be verified. There is time for but a single illustration.

Many remarkable cases of so-called dermographism and stigmatization have been reported. The witches of the Middle Ages were reported sometimes to bear the word Satan inscribed in red on their backs, and saintly mystics to have carried the sign of the cross inscribed on their foreheads, or the like. Richet, the French neurologist, has reported a concrete and modern instance of a mother watching her child, who, in play, accidentally unfastened the catch of a heavy sliding door in front of the fireplace and was in danger of being guillotined. In the fright and shock of the moment, there formed on the mother's neck, the part threatened in her child, a red weal that endured for several hours.

The tendency of the human mind is to look upon such phenomena as supernatural. The explanation of some of these cases, however, is obviously suggested by recent investigations of the formation of conditioned reflexes in the vasomotor field. These were carried out by Cytovitch (12) and

others of the Russian school, apparently with great care to control conditions, and the results show that vasomotor changes similar in character to those reported can be produced in the laboratory as conditioned reflexes.

Dr. Humphrey (19), in a noteworthy paper in the *Journal of Abnormal Psychology,* has attempted to show how largely the different Freudian mechanisms of transfer, symbolization, conflicts, and sublimation, may be explained from the point of view of the conditioned reflex without resorting to the usual theories of the unconscious. While Dr. Humphrey may have carried his explanation too far, on the other hand why need we resort to special mechanisms to explain those activities that are clearly explained simply by the ordinary principles of associated reaction in the production of conditioned reflexes?

One of the well recognized principles of science, so important in psychology and hygiene that it should be especially emphasized, is the rule accepted from the time of the Middle Ages that, in explaining phenomena, we should not multiply entities; and thus when a simple explanation by a well established scientific principle is supplied, the student should not confuse the issue by resorting to complex and speculative theories, however attractive these may be from their appeal to human emotion or from the high authorities that have advocated them.

The extent to which associated stimuli and conditioned reflexes occur in everyday phenomena is hardly realized even by those who have made special study of them. Nearly all the multitudinous inhibitions of daily life, slips in pronunciation, slips of speech, such as those recorded in the little German book, *Versprechen und Versagen,* all the forgotten memories—names of our friends, names of books, of places, of words that we wish to use and that constantly evade us—all the tantalizing memories that we know we possess, but that will not come when we need them, that are obviously in our minds potentially, but that we cannot recall merely because we always think of something else which inhibits the right memory—all these and many other similar phenomena, and all the various inhibitions of activity—from the stammering in our speech and the halting in our action to the more conscious inhibitions from hundreds of superstitions and the like

that paralyze straightforward activity—all such inhibitions, commonplace as they are, are examples of so many conditioned reflexes or associations. So that the aim of mental hygiene to develop fortunate associations and to break down the manifold inhibitions that retard our activity is one that concerns an enormous part of ordinary education and training.

Probably in every act of our daily lives conditioned reflexes are involved. Every habit is probably a system of conditioned reflexes. Watson distinguishes between the conditioned reflex and habit by saying that the conditioned reflex is the element and a habit is a series of conditioned reflexes. It is perhaps better to call a habit a system of conditioned reflexes, as Humphrey does. Every attitude and interest, too, probably involves conditioned reflexes. Thus learning consists in the formation of associations, conditioned reflexes, and systems of conditioned reflexes. Education is a systematic attempt to develop conditioned reflexes that signify normal adjustment to one's environment and efficient activity. In the regular performance of our daily tasks conditioned reflexes and habits should be formed that make for efficiency and also become an anchor to the mental health. The educational and hygienic significance of the conditioned reflex are equally great.

Think of the appalling complexity of the problem of the teacher who has to decide not only what stimuli should be associated with given situations to produce conditioned reflexes and what inhibitions should be developed, but also what inhibitions of unfortunate conditioned reflexes should be developed. The problem for the psychiatrist, in the matter of the reëducation of his patients, is often still more difficult, because of associations that must be inhibited or unlearned.

The contribution of the conditioned reflex to psychiatry is fivefold: first, in giving an objective method for study; second, in showing the elements of one's problems; third, in showing the way to develop healthful associations and to inhibit pathological ones; fourth, in saving one from many erroneous interpretations; fifth, in showing the significance of inhibition, and a method by which injurious inhibitions can be removed.

SUMMARY

1. Apparently, in a child as well as in animals, any stimulus whatever may become associated with another stimulus that occurs simultaneously.

2. Apparently any stimulus whatever associated with sufficient intensity with the original stimulus will produce the same response.

3. An unconditioned reflex is an ordinary reflex. In general terms, it consists in the transformation of a stimulus into a response.

4. A conditioned reflex is one brought about by an indifferent stimulus associated with the biologically adequate stimulus.

5. Any sensory stimulus from any receptor organ may become associated with the biologically adequate stimulus and produce a conditioned reflex.

6. The physical basis for the association that produces conditioned reflexes is a process of neural excitation in the brain cortex. A stimulus coming in from the periphery tends to associate itself with any center that is in a condition of stimulation. The significance of the method is that it is an objective means of studying what occurs in the brain cortex.

7. The brain and mind are active, not passive, in the response to stimuli. Just as in ordinary sense perception a process of selection goes on, so in the formation of conditioned reflexes a selective and differentiating process is functioned by the brain cortex. This is what is called by Pavlov and his students analysis. It is in substance sensory discrimination.

8. This analyzing function of the child's cortex may be greatly reduced on account of various organic and functional disturbances of the cerebrum. So, for example, Krasnogorski observed in the case of idiots and imbecile children that neither mechanical nor thermal nor contact differentiations were possible. In various neuropathic conditions the function of the analyzer shows constant or intermittent disturbances. Differentiations appear difficult in the cases of these children, and have an unstable and indefinite character. In this respect the disturbances in differentiation of the taste and smell analyzers in case of rachitic children are noticeable.

9. Every excitation of a cortical structure brings about always the inhibition of others. The stronger the stimulation of one cortical system, the greater is the inhibition of others. The stronger the inhibition center, the more extended are the irradiations of inhibition. If, therefore, a strong active stimulation focus is present permanently in the cortex, the secondary reactive inhibition can always attain finally such a degree of intensity that its irradiation spreads to the whole cortex. In many nervous systems a moderate focus of stimulation conditions an extremely high degree of inhibition which irradiates extraordinarily quickly and broadly over the surrounding regions of the cortex. On account of this wide irradiation of the inhibition, and on account of the appearance of such intensive areas of arrest, naturally a more or less long-continued depression of the whole cortical activity ensues. This reduction of the cortical activity we are accustomed usually to discriminate as fatigue.

10. Thus cortical fatigue is not exhaustion, but only the reduction of the cortical activity in consequence of a transient, but widely distributed, irradiation of cortical inhibition. A more striking proof of this is the fact that such a general inhibition can be removed at any moment by any new external stimulation of sufficient strength.

11. Sleep is a general mode of arrest of the conditioned reflexes in contrast with other more specific modes of arrest.

12. Pavlov believes that by such investigations as those of sleep one may find the solution of the phenomena of hypnotism and the like. If ordinary sleep is a general arrest of the activity of the higher part of the brain, we can consider hypnotism as an incomplete arrest of various portions of the brain.

13. The law of stimulation and inhibition is briefly as follows: A new and different stimulus affects whatever process is active at the time. If this process is stimulation, it inhibits the excitation. If it is inhibition, the new stimulus inhibits the inhibition.

14. Conditioned reflexes, in contrast with the unconditioned reflexes, are unstable, temporary, always tending to die out if not reënforced by association with the unconditioned

stimulus and subject to inhibition by any chance stimulus from the environment.

15. The child at birth is a paleencephalic organism; the connections between the old and the new brain have not yet been developed, and the individual is more helpless than a dog deprived of his cerebral hemispheres.

16. Very soon after birth, the process of connection of the old brain with the new begins, and the process of association making possible the formation of conditioned reflexes develops early, much earlier than most investigators, perhaps, have realized. The continued development of such reflexes marks the neural development of the child's brain and mind.

17. From psychological investigation, it appears also that the child's innate tendencies and native impulses are simple and his inherited tendencies generic and relatively few in number, so far as emotion is concerned, being, according to Watson, merely the fundamental emotional reactions of fear, anger, and love.

18. It has been suggested that to these innate impulses should be added the impulse to action which shows itself in the young child in the impulse to activity for its own sake, an impulse so generic that it constitutes the matrix from which many so-called instinctive activities are differentiated.

19. While, as already stated, we can distinguish in phylogeny no dramatic beginning of consciousness, we may note that in a general way the ability to form conditioned reflexes marks a tremendously significant epoch in animal evolution. It signifies the advent of the cerebral cortex. It makes education in the higher sense possible. It is fraught with the weightiest possibilities of advantage or of harm to the organism. It means the possibility of education.

20. The education of the child is largely a process of acquiring in the first place conditioned reflexes and then the more permanent associations and systems of conditioned reflexes that we call habits.

21. The great individual differences in children as regards learning are largely differences in the ability to form and to break down associations and conditioned reflexes.

22. One important aim of education should be to preserve

this plasticity of the individual which makes learning and development possible.

23. The conditioned reflexes in feebleminded and defective children are different in character; for example, the neural structure seems to be less plastic, and conditioned reflexes, once formed, are not easily broken down. A similar characteristic of the feebleminded child has been reported from observation. Such a child, once having learned a reaction or a habit, cannot easily change to a different one. This lack of ability to unlearn what has been acquired seems one of the distinctive characteristics of arrest of development.

24. In the acquisition of these conditioned reflexes during the early years of life, we have a record of the development of the special function of the neencephalon significant for psychology, pedagogy, and hygiene.

25. When a conditioned reflex has been established, the original stimulus itself is often reënforced by the associated stimulus.

26. The child is usually unconscious of the conditioned reflex—that is, the response occurs without his knowing why; likewise the child is usually unconscious of the reënforcement of the original stimuli by the associated stimuli.

27. Conditioned reflexes may be removed, as they are sometimes formed: (1) by shock, i.e., an intense stimulus that inhibits the conditioned stimulus; (2) by reconditioning, i.e., by establishing an antagonistic conditioned reflex by many repetitions.

28. As regards its wider relations, the method of the conditioned reflex offers a means of studying objectively the associative and inhibitory functions of the brain cortex and throws light on the association of ideas, mental attitudes, and the like.

29. The association of ideas, mental attitudes, and the like, are of two classes—either adjuvant or inhibitory to the tasks one has to perform. The importance for mental health of developing healthful associations and attitudes and removing injurious attitudes is as great as the development of healthful conditioned reflexes. Practically the same laws apply to both.

30. In accordance with the general principle of science that

we should not multiply entities, but should choose simple methods of explanation of nervous and mental phenomena rather than complex hypotheses, it is well to study all the difficult and perplexing problems of mental hygiene first from the point of view of the conditioned reflex, resorting to other methods of approach later.

Bibliography

1. Anrep, G. V. Pitch discrimination in the dog. Jour. of Physiology, 1919-20, Vol. 53, pp. 367-385.
2. Bechterew, V. M. von. Die bedeutung der suggestion im sozialen Leben. Grenzfragen des nerven u. seelenbens, 1905, Vol. 6, 142 p.
3. Bechterew, V. M. von. La psychologie objective. tr. from Russian by Kostyleff. Paris; Alcan, 1913, 478 p.
4. Bostock, F. The training of wild animals. N. Y.; Century Co., 1914, 256 p.
5. Bronner, Augusta F. Attitude as it affects performance of tests. Psy. Rev. 1916, Vol. 23, pp. 303-331.
6. Burnham, William H. Hygiene and pedagogy of habit. Amer. Jour. of School Hygiene. 1917, Vol. 1, pp. 137-150.
7. Burnham, William H. Mental hygiene and the conditioned reflex. Ped Sem. 1917, Vol. 24, pp. 449-488.
8. Burnham, William H. Orderly association as a condition of efficient brain activity. Ped. Sem. 1913, Vol. 20, pp. 360-390.
9. Burnham, William H. Suggestion in school hygiene. Ped. Sem. 1912, Vol. 19, pp. 228-249.
10. Cannon, W. B. Bodily changes in pain, hunger, fear and rage. N. Y.; Appleton, 1915, 311 p.
11. Cannon, W. B. The interrelations of emotions as suggested by recent physiological researches. Amer. Jour. of Psychology, 1915, Vol. 25, pp. 256-282.
12. Cytovitch, S. and Folkman, N. F. Pléthysmographie, comme méthode d'enregistrement des réflexes conditionnels chez l'homme. Comptes rendus de la societé biolgique. 1917, Vol. LXXX, pp. 762-769.
13. Dontchef-Dezeuze, M. L'image et les reflexes conditionnels dans les travaux de Pavlov. Paris; Alcan, 1914, 176 p.
14. Hall, G. Stanley. The Freudian methods applied to anger. Amer. Jour. of Psychology, 1915, Vol. 26, pp. 438-443.
15. Hall, G. Stanley. The hygiene of appetite and of the environment of eating. Proc. Amer. Sch. Hyg. Assoc. 1913, Vol. 1, pp. 332-336.
16. Heilbronner, K. Über Gewöhnung auf normalen und pattholgischen Gebiete. Grenzfragen des Nerven- und Seelenlebens, 1912, No. 87, 51 p.
17. Hough, Theodore. The classification of nervous reactions. Science, 1915, Vol. 21. pp. 406-417.
18. Hug-Hellmuth, H. Von. A study of the mental life of the child. Washington; Nervous and Mental Disease Pub. Co. 1919, 154 p.
19. Humphrey, George. Education and Freudianism. Jour. of Abnormal Psychology, 1921, Vol. 15, pp. 350-386.

19a. Humphrey, George. The child's unconscious mind. Jour. of Abnormal Psychology, 1921, Vol. 15, pp. 387-402.
20. Humphrey, George. Imitation and the conditioned reflex. Ped. Sem. 1921, Vol. 28, pp. 1-21.
21. Hunter, W. S. The delayed reaction in animals and children. Cambridge, Mass.; Holt, 1913, 86 p.
22. Kempf, E. J. Psychopathology. St. Louis; Mosby, 1920, 762 p.
23. Krasnogorski, N. Über die Bedingungsreflexe im Kindesalter. Jahrbuch für Kinderheilkunde, 1909, Vol. 19, pp. 1-24.
24. Krasnogorski, N. Über die Grundemechanismen der Arbeit der Grosshirnrinde bei Kindern. Jahrbuch für Kinderheilkunde, 1913, Vol. 28, pp. 373-398.
25. Lashley, K. S. Reflex secretion of the human parotid gland. Jour. of Exper. Psychology, 1915, Vol. 1, pp. 461-493.
26. Martin, L. J. Mental hygiene. Baltimore. Warwick & York, 1920.
27. Mateer, F. Child behavior: a critical and experimental study of young children by the method of conditioned reflexes. Boston; Badger, 1917.
28. Mercier, C. A. The nervous system and the mind. London; Macmillan, 1888, 374 p.
29. Morgulis, S. The auditory reactions of the dog studied by the Pavlov method. Jour. of Animal Behavior, 1914, Vol. 4, pp. 142-145.
30. Morgulis, S. Pavlov's theory of the function of the central nervous system and a digest of some of the more recent contributions to this subject from Pavlov's laboratory. Jour. of Animal Behavior, 1914, Vol. 4, pp. 362-372.
31. Paton, S. Human behavior. N. Y.; Scribners, 1921.
32. Pavlov, J. P. L'excitation psychique des glandes salivaires. Jour. de Psychologie, 1910, No. 2, pp. 107-114.
33. Pavlov, J. P. L'inhibition des reflexes conditionnels. Jour. de Psychologie, 1913, Vol. 10, pp. 1-15.
34. Pavlov, J. P. The work of the digestive glands. London; Griffin, 1910, 266 p.
35. Sherrington, C. S. Reflex inhibition as a factor in the coördination of movements and postures. Quarterly Jour. of Experimental Physiology, 1913, Vol. 6, pp. 251-310.
36. Warner, F. The study of children and their school training. N. Y.; Macmillan, 1897, 264 p.
37. Watson, John B. The place of the conditioned reflex in psychology. Psy. Review, 1916, Vol. 23, pp. 89-116.
38. Watson, John B. The pre-Kindergarten age,—a laboratory study. Kindergarten and First Grade, 1920, Vol. 5, pp. 14-18, 68-72, 105-109.
39. Watson, John B. and Morgan, J. J. B. Emotional reactions and psychological experimentation. Amer. Jour. of Psychology, 1917, Vol. 28, pp. 163-174.
40. Watson, John B. Psychology from the standpoint of a behaviorist. Philadelphia; J. B. Lippincott Co., 1919, 429 p.
41. White, Wm. A. The mental hygiene of childhood. Boston; Little, Brown and Co., 1919, 193 p.

THE ELEMENTARY SCHOOL AND THE INDIVIDUAL CHILD*

ESTHER LORING RICHARDS, M.D.
Associate in Psychiatry, Johns Hopkins University

IT is with hesitation that I venture upon remarks in the field of education. In the first place, psychiatrists are accused of curious meddling in so many phases of human activity that even the modest statement of an observation or two not infrequently becomes converted into dogmatic assertions and prescriptions for reform. In the second place, the facts responsible for my remarks at this time are not based on a long or wide range of experience. Accordingly, I trust that what I have to say will be regarded merely as a series of personal impressions, and not construed as an attempt to assume direction over the education of the young.

Perhaps there is no institution of our social organization in which the individual can so easily become lost in the group as in the elementary school. To be sure, we are surfeited with books on the psychology of the child. We speak freely of the backward child, the nervous child, the incorrigible child, and yet it is theories regarding these groups that we take up in actual discussion. In looking over some one hundred advertisements of private schools not long ago, I was impressed with the same type of fact. There was "special attention" given to college preparation, to athletics, to health, to the comforts of home, to culture, etc., but only one school advertised "special attention given to the individual child." I suppose the argument offered in defense is that the school training aims to be ample for the needs of every child. For example, its courses of study have been so carefully prepared and standardized that a child who repeats his grade once or twice must be backward. Or again, the boy who deliberately turns aside from a clean bed and a well-ordered class room to follow a huckster's wagon, or run with

* Read before the Mental Hygiene Section of the National Conference of Social Work, Milwaukee, June 23, 1921.

the gang on the street, must have the deep-seated waywardness of the incorrigible and delinquent, to act in a way so contrary to the behavior of his fellows. Are these children misfits in the school system because of some innate personal deficiency, such as retardation, neuropathic constitution, and viciousness? In some instances they are, but in many instances the repeating of grades, the temper outbursts, the crying spells, the truancy, are symptoms of difficulties in adjustment arising from a more superficial background. In the dispensary of the Henry Phipps Psychiatric Clinic of the Johns Hopkins Hospital, we examined 143 children during the months of September, October, and November, 1920. One hundred came directly or indirectly from the schools of Baltimore and its suburbs. Of this number, 80 were referred for backwardness expressed by the repetition of grades and uncomplicated by disciplinary troubles. Only 50 per cent of the latter showed actual retardation, according to the Binet-Simon tests. The poor record is class work made by the other 50 per cent was associated with certain facts that can best be discussed by drawing your attention to a bit of study along this line that has been carried on for several years as a sort of by-product of our psychiatric dispensary.

In January, 1918, under the direction of Dr. Adolf Meyer, I undertook some work in one of the Baltimore schools (School 76) with pupils who were reported as difficult by parents and teachers. The venture was a piece of private research, quite divorced from any organized activity in the public-school system. The school chosen had been the center of an investigation for the study of feeblemindedness, which Dr. C. Macfie Campbell had made in this locality in 1914. My interest was in the non-feebleminded, though I followed up the complaints as they were referred, without discrimination. Of the 46 children who came under observation, 35 were reported as having difficulty in keeping up with their grades in one or more subjects. In each of these cases where there was a suggestion of retardation, the Binet-Simon test was applied. As a result, 16 of the above-mentioned 35 were found to have a mental retardation of from three to six years. The academic troubles of the remaining 19 were associated with, if not the disguised expression of, such faulty psycho-

biological reactions as shyness, laziness, inattention, and vicious tendencies, sensitiveness to criticism, daydreaming, hypochondriacal fears with resulting irregular attendance. The 11 remaining from the total 46 were referred for the more overt adaptive difficulties of temper tantrums, sullenness, crying spells, twitching, indifference, excitability, poor coördination with the hands, quarrelsomeness, etc.'"[1]

In reviewing the data accumulated, one fact stood out: in practically every case the peculiar characteristics for which the child was referred could be easily traced to their first appearance in the early years of school—kindergarten and first and second grades. In the majority of cases also, the unhealthy habits of adaptation began in the home, and were carried into and through the school life, handicapping the efforts of teacher and child to get together on the business of early training in the class room; and the commonest result of this handicapping was the repetition of grades. Accordingly it seemed best to devote some time to the first grade, with the special object of examining the problem of backwardness at its source.

By way of experiment, 18 children were selected from the first grade for special study. Their ages ranged from six to ten, and their years of repeating the first grade from one to three. These children were studied from the standpoint of the story of the home, the story of the school, and the story of the child himself, as recorded under the headings of complaint, school history, habit data, personality traits, and a rough estimate of physical status as obtained from the health records, weight curve, and brief examination. Aside from the Binet-Simon tests, no special technique was used, either in the examination of the children or in the sifting of facts. The Binet-Simon findings were as follows: In 2 cases the actual age and tested age were exactly the same; in 7 cases there was a difference of only one year between the actual age and the tested age; in 7 cases there was a difference of two years between the actual age and the tested age; 1 case objected so violently to examination that it was thought best not to push matters; and 1 case showed a difference of three

[1] The details of this study, which was of some fifteen months' duration, were published in MENTAL HYGIENE, Vol. 4, pp. 331-363, April, 1920.

years between the actual age and the tested age. It was felt that the difference of from one to two years between the actual age and the tested age of 14 of these children represented no real backwardness, but was the expression of various factors in the background, development, early training, and personality traits of the individual children. That these were the facts responsible for the lodging in the first grade seemed more feasible than deficient mental equipment.

Turning from the facts of standardization to those of physical condition and living arrangements, there was nothing striking in the story of these little people. There was 1 mouth breather, 1 child with definite eye strain, and 2 tuberculosis suspects. Several children appeared pale and undernourished, but only 2 weight curves were below the normal. The habit data were characteristic of this industrial section—comparatively late bedtime, with two, often three sleeping in a bed; a diet of coffee, buns, and soup; movies two nights a week. Unideal as these conditions are, it must be remembered that they have not proved a serious hindrance to the school progress of hundreds of other boys and girls.

The school records of the members of this group varied little one from another. There was the same amount of language difficulty and uneven attendance that is found in the average classes throughout the school, so that here again, as in matters of health and living arrangements, one had to beware of over-emphasis on obstacles that are commonplace in this community setting. The stories of the various children were remarkably similar. John Jones had entered the first grade at six or eight years of age, acquitted himself with a "poor," and been rolled on to another first-grade teacher at the end of a half year, with all the moss of reputation for "dumbness" that he had acquired in first-grade sojourns elsewhere. Not infrequently John Jones and I were introduced by the teacher before the whole class with the remark: "I'm glad you've come to examine John. He can't seem to learn a thing. I don't know what's the matter with him. John Jones, stand up and let the doctor see you."

Naturally the mental attitude of a child who has been passed from one teacher to another for a year or two without promotion is a very interesting study. Some of these children

were calloused to ridicule, teasing, and loud rebukes, both at school and at home. Ambition and the spirit of rivalry had gone. They were bored timeservers in the class room, often organizing mild revolutions when the teacher's attention was diverted for a moment. Others covered up a sense of shame at not being promoted by various reactions attributed to their being "high-strung and nervous." They were exceedingly "touchy" over the slightest criticism or teasing, bursting into tears or explosions of cursing at the most trivial provocation. Still others seemed to have sunk into an uncommunicative state, never volunteering a remark and rarely answering a question, but quietly amusing themselves in a way to escape contact with the environment as much as possible. The general characteristics of the group and the personal traits of its individual members were so interwoven that in many instances it was impossible to say how much of the child's behavior was due to temperamental idiosyncracies and how much was a defense mechanism developed to meet the school existence. Each child had his own story of shyness, obstinacy, sensitiveness, fear, laziness, etc., which undoubtedly played a large rôle in his failure to make a good start in school.[1]

Following the gathering of data on the above group, it was arranged with the principal of School 76—Miss Persis K. Miller—that these repeaters be put under the supervision of a teacher who had the time, patience, and skill to see what could be done with the 18 candidates for reconstructive therapy. Such a teacher was kindly given us by Dr. West, Superintendent of Baltimore Schools, and she began her work September, 1920. In January, 1921, she reported that 10 of the class were doing good, steady, second-grade work; 7 were making satisfactory progress in the first grade; and 1 seemed impossible to modify. At the close of the school year—June, 1921—all of the above-mentioned 10 qualified for third-grade work, and will go into ordinary third-grade classes this coming fall. The remaining 7 qualified for second-grade work, and will go into regular classes at the beginning of the coming school year. Only 1 child of the class of eighteen failed to respond to special study.

[1] A sketch of the detailed examinations of the separate cases appears in the chart accompanying this paper. See pages 720-723.

Eight of the 10 children who made the second grade in January, 1921, and the third grade in June, 1921, had repeated the first grade at least twice before entering this special class in September, 1920, and according to the Binet-Simon tests 7 of these 10 children showed a difference of from two to three years between their actual age and tested age; 2 showed a difference of one year between these ages; and 1 child had an intelligent quotient of one hundred.

Before passing on to a discussion of the above results, I want to outline the problem involved in two or three cases:

E. B. (No. 4) was a boy of ten when I first saw him in March, 1920. He was referred by some three first-grade teachers as "decidedly retarded." He had entered school in the first grade at six years of age, and was still lodged there in his fourth year of school attendance. Aside from his supposed stupidity, the reports of him were colorless. He idled away his time in school without doing anything worse than staring out of the window, whispering, and occasionally giving some other child a sly punch. No teacher had ever been able to get a "rise" out of him by threatening, scolding, ridiculing, or keeping him after school. What he learned to-day was gone to-morrow. His mother finally became reconciled to his failure in promotion, ascribing it to "nervousness," a term that the boy was glad to carry around in self-protection.

Examination: E. B. was a clean, well-nourished boy with good living arrangements. He had drifted into the habit of auto-erotism, unassociated, however, with any particular reaction. There was no shyness or embarrassment. He answered questions promptly and with affability. According to the Binet-Simon tests, he had reached a mental age of eight years. There was a marked attention difficulty, with a tendency to guessing and jumping at conclusions. It impressed one as the product of laziness and chronic lack of interest and initiative rather than of natural defect. He had the appearance of being profoundly bored and indifferent. At recess he stood around the yard, not having energy enough to remove his hands from his pockets and bully a younger boy. His mental attitude was expressed by the statement: "I don't work because I'm too nervous." In what way are you nervous? "I don't know. Mother says I am."

Process of Modification: This boy was the hardest problem of the group from the standpoint of modification. To hold his attention for five minutes, it was necessary to stand over him with the most intimate supervision. Any attempt to push him was met by fear of collapse on the part of the mother. However, as soon as the latter realized that her boy could learn if he would, she became enthusiastic in coöperating with the teacher to eliminate the "nervousness" and bring E. B. up to the standards of which he was capable. The child also gradually awoke to the fact that he could learn, and is apparently gaining enough satisfaction from achievement to keep up with the work of the second and third grades to which he has been promoted. In bearing he is more alert and straightforward, playing naturally with other children. The auto-erotism has not been observed for six months.

M. M. (No. 8) was a girl of nine when I saw her in March, 1920. At that time she was repeating the first grade and not making much progress even on the second trial. She was born in the mountainous section of North Carolina, and lived there till the death of both parents from influenza in 1918, when she came to an aunt in Baltimore. Between the ages of six and eight, she had attended country school irregularly, but apparently had not picked up enough to help her much in the first-grade work of a city school. Her home environment was excellent so far as living arrangements were concerned. She was the only child in the home of an aunt in comfortable circumstances. The aunt was not only kind to her, but was so anxious to compensate for the inferior advantages of the past that she was constantly pushing and prodding M. M. into new activities—speaking pieces in Sunday school, joining children's parties, and taking a front seat in situations that almost stampeded the child's social resources. In school the teachers said that M. M. was dull and had a tendency to be sullen and obstinate when criticized. If pressed to some task, she would bury her head on her desk in tears.

Examination: M. M. was a painfully shy little girl, ruddy and well developed. She was about twice the size of her classmates, and when she got up to recite, she was so self-conscious that the children were obviously amused. Even while we were talking quietly in a room by ourselves, she

hung her head in embarrassment, and her answers to questions were scarcely audible. According to the Binet-Simon tests, she had a mental age of seven years plus, but one felt reasonably sure that the difference of two years between her actual age and tested age was to be accounted for by the psychobiological reactions of sensitiveness and fear described above.

Process of Modification: The aunt was seen, and her coöperation readily elicited. It was suggested that M. M. be left to herself so far as artificial attempts to promote initiative were concerned; that encouragement and as little anxious watching as possible be substituted by aunt and teacher for continuous prodding of the child to a pace incompatible with her feelings of satisfaction and enjoyment. The plan worked well. Gradually she began of her own accord to reach out after people and things. She began to melt into the class group, to get pleasure out of working with some one else, and to play with other children for the fun of it. At the same time her shyness disappeared. She became friendly with the teacher, seeking her out with all sorts of questions. The sullenness, obstinacy, and crying spells have long since ceased to exist. In January, 1921, M. M. made the second grade, and in June, 1921, she passed easily into the third grade. Here again the whole appearance of this child has changed. She is frank and open in manner, talking freely with the ordinary chatter of her age. On entering the class room, one sees her halfway out of her seat, bursting to volunteer in some exercise, when a year ago she almost sank to the floor with confusion over a simple question.

J. B. (No. 3) was a boy of eight when I saw him in April, 1920. At that time he was finishing his second year in the first grade without hope of promotion at the end of the term. He was described as "hard-headed and plain stupid," and he certainly looked the part. He was born in Russia, and had come to this country as a child of two or three. He lived in an overcrowded home, sleeping with one or two others at night, and retiring "from eight o'clock on." His diet was chiefly coffee and buns. English was rarely spoken at home. At six years he had entered the first grade, two years of which had left little if any impression on him. In play he got on badly with the other children, being inclined toward rough-

ness and picking an easy quarrel. In class he could rarely be induced to recite, usually getting no farther than rising to his feet. He did not behave in any extraordinary way that showed embarrassment or anger.

Examination: In appearance J. B. was a thick-set boy, with round, closely cropped head and heavy features over which emotional play was infrequent. There was no spontaneous conversation, nor yet any hesitancy in answering questions. According to the Binet-Simon tests, he had a mental age of six years plus. During this part of the examination, as well as in general conversation with the child, two things stood out: first, a noticeable difficulty in grasping an idea and second, a mental attitude of fundamental shyness and reserve that was quite buried beneath a rough, burly exterior. The slowness in taking in an idea was partly temperamental and partly associated with the fact that at home he is not accustomed to hearing English. However, instead of asking that the question be repeated and explained, J. B. went ahead and gave the best answer he could to his conception of the query. This behavior was probably due to shyness, and also to the fact that questions and answers were for him a matter of command and obedience, without comment. At home he was soundly punished if he displayed too much initiative in discussing parental requests. His attitude toward teachers and others in authority was that of mild suspicion. They were just other persons to get ahead of. At heart he was afraid of them, keeping to himself and thanking others to let him alone. The mother reported that beating him brought no results.

Process of Modification: With the characteristic modesty of a psychiatrist, I left the prescription for drawing out J. B. to be compounded by the teacher of the special class, giving her only the few impressions I have mentioned above. How she did it I do not know, but this little boy has been thawing visibly since she took him in hand last September. January, 1921, he made the second grade, and this month has passed into the third—a fact of which he is extremely proud. Better yet, he gives evidence of making progress in social contacts. He holds his own in games and in class competition, and meets the give and take of life affably and without friction.

These three cases give some idea of the eighteen varieties of problems that confronted the teacher of this special class. In the children as a whole, she ran across several more. For example, the members of the class had no conception of working together in a group. By virtue of certain personal traits, they had always stood apart from their fellows in work and play. Each wanted something different—one to talk aloud, another to be left absolutely alone. The only point on which they were united was that of instant rebellion to seat work of any description. (It seems that in previous school existences these little folks had been given tasks with pencil and paper to keep them quiet, but upon their productions nobody had ever cast an eye even of disapproval.) Another source of perplexity was the utterly demoralized condition of attention habits which the class displayed. If it was hard to get and to hold the attention of the individual members, it was far more difficult to get the attention of the group. Had the teacher done nothing more than help these children acquire habits of working together with harmony, contentment, and satisfaction, she would have accomplished a great task. On entering the class room at the present time, one finds children who have learned the joy of achievement. They want to sing you a song, to show you the illustrations of a story that they have hung around the bare walls of their room. They ask you to stay and hear a reading lesson. But this teacher has done something more from the standpoint of academic record. She has brought seventeen chronic first-grade repeaters up to the standard requirements, enabling them to go on into second and third grades with ease and satisfaction, and she has demonstrated the fact that children who repeat grades in school are not necessarily retarded in mental capacity.

To what have these results been due? Before giving my own impression of the matter, let me say a word about the school background of the above experiment. For several years School 76 has been studying the problem of repetition in its midst. For three years a special health worker, privately financed, devoted her whole time to following up minor ailments—common colds, post-contagious-disease conditions,

and any other factor influencing regular attendance. The result was an attendance record of from 96 to 98 per cent, but the repeating of grades remained *in statu quo*. This same worker directed a campaign towards the relation between progress in school and the clearing up of tonsils and adenoids. The results, over a period of three years, were that 50 per cent of the children operated on showed no difference in their school work, 25 per cent showed some improvement, and 25 per cent appeared to make a poorer showing than before operation.

The plan tried in the first three grades of dividing the class so that each half of a room rotates between playground and class work resulted in a certain amount of gain in school progress, due to the fact that each teacher worked with smaller groups. It did not, however, eliminate repeaters such as have been described above, the majority of whom had been accorded the benefit of the scheme just outlined.

In view of these facts, it would seem that the success obtained with the experimental class was due not so much to the extra time spent on them as to the fact that this time was devoted to a study of the individual needs of these children. Here were 18 school failures according to the criterion of grading, and 18 individuals whose pedagogical record and Binet-Simon findings would be credentials enough to admit them without question to that mysterious order called "the backward child." They could not be poured into the ordinary mold of school curriculum because of certain traits of personality that had to be discovered, understood, and wisely handled. The same psychobiological characteristics of shyness, indolence, fear, sensitiveness, daydreaming, etc., acted as conflicting factors in the Binet-Simon tests, obscuring the native capacity to such an extent that a difference of from one to three years appeared between the child's actual age and tested age.

A year of school training directed by an understanding of these characteristics has resulted in restandardization data with the Binet-Simon tests in June, 1921, that run parallel with the academic progress of these children as recorded in their grading reported above. The 7 children who showed a difference of two years and over between their chronological

age and mental age according to intelligence tests made in March, 1920, now show a mental level that coincides with their actual physical age.

In conclusion, I would go back again to the problem of what is being done in the elementary schools for the child whose adaptive difficulties are such that he cannot assimilate the regular training without such special lifts in the way of individual understanding as I have outlined above. The psychiatrist would probably not make it his business to raise the question or wrestle with its answering, were he not daily confronted in dispensary and private practice with concrete issues of this sort. The 100 school children referred to as passing through the dispensary of the Henry Phipps Psychiatric Clinic of the Johns Hopkins Hospital last fall are illustration enough. By the time they come to us, however, they have not infrequently been consigned to that heterogeneous gathering of misfits known as "the ungraded class," there to remain till the law releases them to enter the working world. With years of repeating behind them, and a mental attitude of disgruntled tolerance of their situation, we find an intelligence quotient of 80 and over. It is no wonder that the school is aghast over our report that the poor academic record is probably the result of a bad adaptive start, rather than of mental retardation. From a pedagogical standpoint, the remedy would seem to lie, not in ultra-standardization of curriculum and the infusion of more interests and activities in the program, but in creating opportunities for teacher and child to understand each other. In School 76, we are attempting a practical application of this theory by seeing to it that the child gets a good start in the first and second grades. For example, out of 150 first graders during this past year, 30 laggards and irreconcilables have been culled for special study. (Eighteen of this number were spending a second year in the first grade, and 12 of the remainder were destined to fail in promotion.) On actual examination, there were but 4 retarded children in the group. The troubles of the other 26 were akin to those described in the class of 18. Smaller classes and closer supervision of the first- and second-grade teaching are to be the tactics employed in this particular situation.

And for those of us who examine such children, there is subject for reflection. Are we using the Binet-Simon scale as a yardstick to measure off lengths of intelligence, or are we using the tests as a help towards the sizing up of individual child problems? Are we confusing the term "mental age" with a diagnosis of the home situation in question? Do we see the personality with its setting of life story behind the intelligence level? These are possibilities of view that at times seem strangely remote from the productions of psychiatrists and practicing psychologists. As such, we should beware of agitating ourselves to decimal points of determination concerning qualifications for the groups of subnormal and dull, lest the object of our research becomes buried beneath this mound of his own case.

In concluding this resumé of modest beginnings, I want to thank Dr. Henry S. West, Superintendent of the Baltimore Public Schools, for permission to carry out these studies. The credit for their result belongs to Miss Persis K. Miller, Principal of School 76, and to Miss Gertrude Soran, teacher in charge of the experimental class. Without their enthusiasm, skill, and inexhaustible patience, the research could never have been accomplished.

CHART OF SPECIAL CLASS, SEPTEMBER, 1920–JUNE, 1921

Number	Age	Binet-Simon	School grading	Physical status	Habit data
(1) A. A.	8	8	Beginning 3rd year in 1st grade.	Satisfactory.	Poor eating habits.
(2) B. W.	7	6+	Beginning 2nd year in 1st grade.	Slight speech defect.	Sleeps 3 in bed.
(3) J. B.	8	6+	Beginning 3rd year in 1st grade.	Ruddy. Well nourished.	Coffee-and-bun diet. Late bedtime.
(4) E. B.	10	8+	Beginning 4th year in 1st grade.	Healthy.	Living arrangements O. K. Anxious mother.
(5) G. A.	7	Uncoöperative to test.	Beginning 2nd year in 1st grade.	O. K.	Satisfactory.
(6) M. L.	8	6	Beginning 3rd year in 1st grade.	Pale, uneasy child.	Poor food. Neurotic mother.
(7) M. E.	8	5+	Beginning 4th year in 1st grade.	Tuberculosis suspect Eye strain.	Late bed. No home care.
(8) M. M.	9	7+	Beginning 2nd year in 1st grade.	O. K.	Excellent.
(9) N. E.	9	7+	Beginning 3rd year in 1st grade.	O. K.	Neurotic family setting.
(10) L. J.	6	5	Fifteen months in 1st grade.	Seems good.	Bed wetter.
(11) R. H.	9	7	Beginning 3rd year in 1st grade.	Mouth breather; underweight.	Good home setting.
(12) R. W.	8	6	Beginning 2nd year in 1st grade.	O. K.	Poor home setting; irregular attendance.
(13) S. P.	8	6	Beginning 2nd year in 1st grade.	Two pounds underweight.	Poor food.
(14) S. L.	8	7	Beginning 3rd year in 1st grade.	O. K.	Movies four times a week.
(15) S. W.	6	6+	Beginning 2nd year in 1st grade.	Ten pounds underweight.	Sleeps 3 in a bed. Late bedtime.

Progress Notes, June, 1921

Personality traits			School grading	Binet-Simon	Subsequent data
Leans on others. No self-confidence.			3rd grade.	Not retested.	Independent worker. Full of initiative.
Lazy; chronic guesser; easy-going.			2nd grade.	Not retested.	Good attention habits. Some spirit of competition.
Shy, awkward, self-conscious; home punishment for stubbornness.			3rd grade.	9 (age 9).	Affable; good mixer. Has "loosened up" all around.
Marked guessing reaction; poor attention; lazy, indifferent, auto-erotic.			3rd grade.	10+ (age 11)	Ambitious; good attention; auto-erotism not apparent; better mixer.
Painfully shy; tearful when pushed beyond own pace.			2nd grade.	Untested.	Has responded well to drawing out. Still shy except with teacher.
Worried, anxious, ashamed of failures; sensitive to point of tears.			3rd grade.	8+.	Happy and contented in work. Proud of progress. Plays naturally.
Guessing reaction; poor attention; quarrelsome.			3rd grade.	10 (age 9)	Attention recovery; competitive spirit; transferred to open-air class for better hygiene, April, 1920.
Shut-in; guessing reaction; shy; temper storms followed by sullen periods.			3rd grade	9+ (age 10)	More normal in general reactions.
Talkative; given to guessing reaction; inattentive.			3rd grade.	10+ (age 10)	More stable and dependable in every aspect.
"Always so quiet;" "under dog" at home; no school friends.			1 A grade.	6 (age 7)	Little response to teacher's efforts. Child silent with no special emotional reaction. Question of genuine retardation.
Excitable; demoralized attention habits.			3rd grade.	9+ (age 10).	Steady worker; good home coöperation; a notable progress in general development.
Quiet, sensitive, serious make-up; painstaking.			2nd grade.	8 (age 9).	Out of school with diphtheria till January, 1921. No home coöperation.
No play characteristics; shy.			2nd grade.	8 (age 9).	Better mixer; coming out of his shell with encouragement.
Lazy, good-natured, indifferent.			3rd grade.	Untested.	Good progress in interest and group spirit.
Bright, alert; rushed into school too early.					Left school January, 1921, for active tuberculosis. Teacher says he could easily have made 2nd grade.

CHART OF SPECIAL CLASS, SEPTEMBER, 1920–JUNE, 1921—*Concluded*

Number	Age	Binet-Simon	School grading	Physical status	Habit data
(16) W. B.	7	7	Beginning 2nd year in 1st grade.	O. K.	Poor home setting.
(17) Y. P.	8	7	Beginning 3rd year in 1st grade.	O. K.	Sleeps 3 in a bed.
(18) J. Z.	7	5	Beginning 2nd year in 1st grade.	O. K.	Good living arrangements.

PROGRESS NOTES, JUNE, 1921—*Concluded*

Personality traits			School Grading	Binet-Simon	Subsequent data
Stolid, unimaginative.			2nd grade.	Untested.	Developing slowly; more emotional expression and interest.
Careless, indifferent, talkative; social joy.			3rd grade.	10 (age 9).	
Shy; sensitiveness; odd behavior; seclusive.			2nd grade.	Untested.	Owing to mother's death, child was put into orphan asylum, May, 1921.

EXTRA-MEDICAL SERVICE IN THE MANAGEMENT OF MISCONDUCT PROBLEMS IN CHILDREN*

MARION E. KENWORTHY, M.D.
New York School of Social Work

PRACTICAL experience in the management of the problems that present themselves in a psychiatric clinic forces an early recognition of the fact that for the most successful therapeutic results the assistance of non-medical agencies is of prime importance. Physicians in charge of clinics have turned to the social worker for this assistance, which makes it well to consider why it is that the social worker is preëminently fitted to assist the psychiatrist in the adjustment of these difficult problems of maladaptation. It is my purpose in this paper to answer that question by showing some of the outstanding opportunities by means of which extra-medical service can be of indispensable value in the management of conduct problems in children.

For two years we have had a mental-hygiene unit in connection with the Vanderbilt Clinic, under the able leadership of Dr. Bernard Glueck. One of the aims of this clinic has been to furnish a practical teaching center for the training of psychiatric social workers engaged in study at the New York School of Social Work. The results have been gratifying from two points of view.

First, through the medium of this mental-hygiene clinic, the workers have received an experience in handling cases of maladjustment and misconduct. The clientele of a clinic of this kind includes widely varying types of cases, with all gradations of maladjustment, ranging from the very simple problems of faulty parental understanding to the more serious forms of mental disease. A field of training presenting such a rich variety of problems supplies the student worker with a more comprehensive experience in mental-hygiene work than could be obtained in a state hospital,

* Read before a joint meeting of the Mental Hygiene and the Family Section of the National Conference of Social Work, Milwaukee, June 27, 1921.

which deals largely with the end results of mental disease rather than with maladjustment in its incipiency. Also, in the pursuit of these studies in adjustment, we have often found that the situations met with were not only germain to psychiatric practice as such, but paralleled those found in all case work dealing with human problems—those of the family, child placing, and the like. Thus we were led to appreciate the importance of mental-hygiene problems in all case work.

Second, we found that in the adjustment of the patient, the continuous and coöperative assistance of the social worker became a forceful therapeutic agent in carrying the case to a satisfactory conclusion.

It might be well to ask ourselves, then, before entering the discussion of actual concrete situations, what are the aims and tasks of the social worker. And within the purview of this question I should include all social workers; for I feel more and more strongly convinced that experience in this field of psychiatric inquiry, containing as it does a wealth of mental-hygiene principles applicable to every branch of case work, should be made a basic foundation in the training of all social workers. It is to be hoped that before many years we will no longer divide social workers into specialized groups, considering the psychiatric branch as an entity apart—except in so far as special problems will always require the specialist and will attract those whose interests are primarily in this field—but that a thorough training in mental hygiene will be included in the equipment of every social worker, that she may be the better able to understand and adjust the problems that she will meet in actual practice.

What, then, shall we conceive as the fundamental task of the social worker engaged in the handling of cases of maladjustment? First and foremost, it is the determination of the motives that lie behind acts—the discovery of the key to each individual problem of misconduct presented. The first step toward this goal is the collection of all the material available with regard to the elements in the child's life that might tend to shape and influence its development. By means of these data, interpreted with the aid of the psychiatrist, the worker will gain an insight into the forces that make for success and failure in the particular case in question.

These intimate studies, too, will enable the investigator to make a valuable estimate of conditions in the home, and if we accept the fact that the problem of the mental case is not confined to the patient alone, we will appreciate how necessary it is to have an adequate picture of the home setting. Without such a picture it is impossible to determine how changes can best be effected in the maladaptation of the patient, through the application of well organized, constructive guidance and wise foresight rather than by moralizing about his difficulties. I say moralizing, because formerly the amateur worker attempted to solve these problems on an emotional basis, unconsciously using social work, no doubt, as a means of gratification for her own repressed emotional cravings. In this connection, I am reminded of a well-meaning social worker attached to one of New York's large churches, who brought a thirteen-year-old boy to the clinic with the request that he be sent to a reform school at once because he was a crook. It seems he had stolen seventeen cents out of the Sunday-school box and had "almost stolen twenty-three cents."

If we are to direct the progress of any given problem to the best advantage, we must make a thorough study of the personality of the patient, that we may be able to estimate human values aright. This involves a knowledge of the individual's native and acquired equipment—an understanding of his inherited traits and an evaluation of his special aptitudes and handicaps. This one aspect of the case alone will furnish us with a powerful means of combating failures of adjustment.[1]

Our study should include also a careful estimate of the family. Formerly investigation of this sort stressed the physical aspect, but we have now come to recognize the preëminent importance of the psychological elements existing in the relationships within the family unit. If we are to modify or reshape the original desires and strivings of the patient by education, we must recognize some of the possible

[1] Any one not familiar with Dr. Augusta F. Bronner's book, *The Psychology of Special Abilities and Disabilities*, would do well to read it, as it is an admirable presentation of this subject. Published by Little, Brown, and Company, Boston, 1917. 269 p.

sources of conflict or failure in his attempts at adjustment to life. Thus we are early led to realize that *dissatisfaction* which becomes reflected in the patient's attitude may be the result of a specific reaction to his surroundings.

In the consideration of the possible sources of these dissatisfactions, let us first discuss those that may exist in the home. The social worker, through her many possible contacts in the home, has an opportunity to gain a better knowledge and insight into this side of the problem than the psychiatrist himself. Indeed, the psychiatrist is largely dependent upon the worker's ability to gain a true picture of existing situations through the many sources of information available to her, since without such knowledge, it is impossible for him to give really constructive help to the child.

I feel sure that it is a rather common experience for us all to find situations in which the child either fails to recognize the true source of his dissatisfactions or, if he does recognize the key to his difficulty, withholds the distressing information through a false sense of pride, which makes him feel that the discussion of family relationships is dishonorable; or he may fear possible punishment by an irate parent who is perfectly willing to concede that the child is "nervous" and in need of mental-hygiene care, but utterly refuses to accept any personal responsibility in the matter.

This type of situation is well illustrated by the recent case of a twelve-year-old boy brought to the clinic because he was "nervous," stuttered, and had been displaying some asocial tendencies—such as lying, petty stealing, staying out late at night—for the past two years.

The boy was a quiet, sensitive fellow, small for his age, with only fair muscular development, but of good average intelligence. School progress was fairly satisfactory; he was doing acceptable seventh-grade work, although in recitations he was handicapped by stuttering. At the first interview, little subjective information could be gained from him, but through the history obtained by the worker, the suggestion of an antagonism between the boy and his father was brought out. This explained the failure to persuade the boy to talk frankly at the clinic, since he was accompanied there by his father. Subsequent talks revealed the fact that for the past

two years the boy had felt a growing antagonism in his father's attitude toward him. This is rather illuminating in view of the fact that the father reported that the boy's present nervous trouble had begun about two years before. Gradually the boy had come to believe that his father disliked him. He felt that he was always the one to be punished in case of doubtful responsibility, and he found it impossible to talk things over because his father immediately lost his temper. He expressed this by saying: "He always hollers on me when I'm around, and so I don't stay in the house when he is there." Gradually the boy developed a sense of irritation toward his father. He would not ask him for money because he felt that his father would refuse to grant any of his requests. In consequence of this attitude, he accepted the precepts of the neighborhood gang as the most satisfactory for his purposes. He did some stealing, lying, craps shooting, and often stayed away from home at night until he was sure his father would be in bed and asleep.

Discussion of these difficulties with the father was at first met with denial and some antagonism, but gradually he conceded that there might be truth in the suggestion, for he had already recognized that the boy stuttered much more when he was about, and finally he admitted that his own nervousness, frequent outbreaks of temper, and loss of patience did tend to increase the boy's difficulties. There were numerous other elements tending to contribute to the boy's maladjustment which are not pertinent to the immediate discussion, but as a result of the father's change of attitude and his new approach, very satisfactory progress can be reported.

In a consideration of the possible sources of dissatisfactions arising from the home environment, we are frequently forced to recognize the potency for evil lurking in the extreme dependence of the child upon the parent. The end results of this relationship we find in adult neurotics, in whom we discover evidences of an early father-daughter or mother-son dependence which has continued to exert its influence throughout the life of the individual and, through its unconscious force, has determined the choice or non-choice in marriage, with consequent unhappiness and dissatisfaction and the resulting train of neurotic symptoms. It is thus per-

tinent that we recognize in the adjustments of these children the necessity for the early establishment of a well-balanced relationship between child and parent, such as will permit the individual growth and gradual emancipation of the child.

Again, the relationships that exist between children in the same family may produce situations that furnish food for dissatisfaction. Consider, for example, the problem of the eldest child. If he has been the sole interest of fond parents for a period of four or five years, the advent of another child in the family is a distinct insult to his ego, and he finds that he must make some fairly radical adjustments to the new scheme of things.

A case in point is that of a five-year-old boy whose mother brought him to the clinic because he had become a troublesome conduct problem. He utterly refused to obey, despite severe punishments; he would strike and pinch the baby of one year, so that the mother dared not leave them together unattended; on the street he refused to play with other children, but took delight in pushing the younger children off the curb or taking their toys to destroy or throw them away. The boy confided in conversation: "I hate that baby sister—she is no good. I'd like to kill her." A very truthful statement made by a child who recognized that the presence of the sister entirely changed the even tenure of his existence as a demigod in the household.

We are next led to consider the problems of the middle child, who perforce compares himself with the eldest, to whom falls the recognition of superior age and knowledge, with its concurrent responsibilities in matters of conduct among the others, including himself. In consequence, he conceives his position as being less enviable—that of the underdog. At the same time he may feel that his place in the household is less desirable than that of the youngest child, who receives greater care and attention, it seems, than was ever accorded to him—the step-child, as he comes to believe. In these cases we often find that the middle child gradually develops a grudge attitude which may manifest itself in certain troublesome asocial tendencies, such as lying, stealing, bed wetting, running away, and the like, and it is a frequent experience to have the parent confide that this particular child is a source

of more worry and anxiety than all the rest of the family put together. In the study of the cases belonging to this group, therefore, it is essential that we seek the motive behind the conduct. And often we will be forced to recognize the fact that the asocial behavior has a distinct value to the child as a means of putting himself across. He finds that as a result of this display of conduct he does receive attention, and it is attention of one kind or another for which we all blindly strive.

In the problem of the youngest child we have two forces at work. One is the struggle of the child to emulate the standards set by the other members of the family. A common example of this is the desire to follow in the footsteps of a brother, possibly in the matter of attaining success in athletics; and if the younger child is handicapped by some physical weakness and is unable to gain the success for which he strives, there are two directions in which he may turn—the constructive one, by means of which he finds adequate compensation through achievements along some other line, and the destructive one, repeated attempts in an impossible direction through which his sense of inadequacy is gradually increased. The sense of inferiority that he may develop because of his inability to make satisfactory adjustments will often produce a varied train of reactions, from the simple expression of dissatisfaction through misconduct to the more severe grades of mental maladjustment.

The second potent force likely to be at work in the adjustment problem of this youngest child is the influence exerted by the mother in her unconscious attempt to retain her baby; the retention of the child in this essentially infantile state of dependence furnishes a certain type of mother eminently more satisfaction than she can gain by allowing him to grow up and thus losing him. Often the mother says, when faced with this problem: "But what shall I do without a baby? I'll no longer be needed in the world." It is the task of the social worker in such cases to show the parent a better method of gaining satisfaction which will save the child from a possible fixation at a level that will tend to prevent his functioning in later life as a successfully integrated individual.

Another powerful source of dissatisfaction in the home is the problem of sex, as Dr. Healy has so ably pointed out in his study of the problem of conflict as a result of actual sex experience and how it can contribute to misconduct. But there is still another aspect of this problem—that of the parents' attitude towards sex. Often, because of unsatisfactory adjustments in their own sex lives, the parents find it difficult to assist the child to gain a normal concept of this subject. To protect themselves from discomfort, they make the subject taboo. They meet the child's questions with evasions, refusing to realize that he is bound to get his information from some source and that if they do not supply it, the experiences of the street will give it to him in a less acceptable form. Then, too, this consistent prudery on the part of the parent tends to instill the same attitude into the child, so that he or she may later find that it is impossible to face these sex problems squarely. Some excellent examples of this might be given, but space will not permit.

What, then, are some of the principles of treatment that must be employed by the worker in meeting these problems in the home? The question naturally arises, if it is the home environment that is responsible, why not move the child into new surroundings and give him a chance?

On the surface, this would appear the simplest solution, but there are some very serious objections to this method of treatment, in consequence of which it should always be reserved as the last resort. In the first place, it may always be possible to readjust the home situation through the education of the parents and the child. It must be remembered, however, that to do this will require time and earnest effort on the part of the worker, and that it can be done only by workers employed by organizations with a broad enough vision to appreciate that it is not the quantity of cases handled, but the quality, that counts. One worker cannot possibly be expected to carry forty or fifty active cases and give each one an adequate amount of time and thought; the maximum of active cases should never be higher than fifteen. To this the objection of expense may be raised, but the proper adjustment of these cases in early life constitutes constructive work—and the old maxim that an ounce of prevention is

worth a pound of cure applies here most forcibly; money well spent in a constructive program will not have to be spent in the care of adults in custodial institutions of one kind and another in later life, a point worth considering both from the economic and the sociologic point of view.

The second point to be considered in retaining the child in his home surroundings is this—in so doing you assist him to form the habit of facing trying situations rather than stepping out from under them. The importance of this point will be obvious when you recall that the "golden period" of habit formation is childhood.

Third, in removing the child from his home into surroundings possibly higher in the economic scale, you must always bear in mind the possibility of his return at some time in the future. In such case, it will be necessary for him to make a twofold adjustment, often accompanied by a new dissatisfaction due to the low economic standards of his family.

Among the principles of treatment, we conceive as of prime importance the education of the child in better habits of adaptation to the realities of life. In his attitude toward the family, he should be made to feel that he is one of a unit, the household; that for the satisfactory functioning of this unit his coöperation is necessary, and that it is his responsibility to contribute his part. He should be helped to form habits of frankness and honesty toward his parents and the members of his own family. Out of this will come a new social sense of responsibility to his playmates, his teachers, and the community at large. He must be instructed in the means of overcoming faulty habits of eating, sleeping, etc., and gain a sense of responsibility toward himself.

The second great problem of education is that of teaching the parents of the child. They must be made to realize that in order to train the child, they must first train themselves, for from the viewpoint of social psychiatry education involves every member of the immediate household. They must be made to realize that their personal sentiments may seriously hamper the child's development, inasmuch as they are bound to fail to hold an objective, impersonal point of view in meeting the issues in the child's everyday life if they make deci-

sions based upon their subjective feeling rather than upon objective reasoning.

It is important that they be taught to realize the necessity of emancipation for the child and that they be shown how best to assist the child in developing habits of independence and of self-reliance in matters of dress, companionship, recreation, etc.

They must be taught to bear in mind the suggestibility of childhood and to recognize the fact that a child reared in an atmosphere of semi-invalidism, of headache, and other distressing symptoms tends to develop like manifestations.

We must always remember that the problem of the child may be due largely to the nature of his reaction to an unintelligent home situation, and that his nervous manifestations may be an attempt to adapt himself to his environment.

The second great source of dissatisfaction, which I will consider very briefly, may be found in the neighborhood setting.

The child may, for reasons physical or personal, fail to put himself across with the other children; he may find that he is on the outside of the ring and may react to this unfortunate situation either by becoming antagonistic and a bully, spoiling the fun of the others, or by withdrawing within himself and gradually finding that his own thoughts, which he peoples with dream children, make the most satisfactory playmates—a condition that portends trouble if not satisfactorily adjusted.

Then there is the child who reflects his mother's attitude, who refuses to fight or to be the aggressor and in consequence earns the name of "sissy," "Lizzie," and other epithets not conducive to the magnification of his ego. There is, too, the child who is the smallest of the group and whom the others habitually impose upon. He may be satisfied with the rôle for a time, but gradually the spirit of resentment is likely to creep in and the worm slowly turn. He may react to the situation in an asocial manner, often taking out his irritation on a still younger group or smaller brother or sister, if he has one.

Here, again, the problem resolves itself into one of educa-

tion, and who is better fitted to cope with this situation than the worker, who has the opportunity of knowing these groups and observing the child in his original setting? Through the establishment of new interests and recreational outlets, she will often be able to displace the old sources of dissatisfaction and furnish new, constructive interests of a happier sort.

The third great source of dissatisfaction is to be found in the school life of the child.

He may be faced with failure in school through a lack of equipment. This problem has long been a well recognized field for social intervention; for the necessity of adjusting the feebleminded child is recognized much more readily than the vital importance of adjusting the child of normal or supernormal endowment who for one reason or another has embarked upon a career of misconduct. And yet in the one case we have a child who never will thrive satisfactorily except in a simplified environment, while in the other, that of the normal child, we permit a wanton waste of creative brain power by allowing that child to enter a career guided by destructive rather than constructive principles, if we fail to promote a satisfactory adjustment.

A further source of failure in school progress, with its concurrent dissatisfaction, is frequently loss of time through illness—for example, the long-continued diseases of chorea or organic conditions of the heart, etc. The child may realize that his failure to measure up to the other children is due to this, and to compensate for his sense of failure, he may enter upon a career of insubordination, such as playing hookey, etc., asocial manifestations from which he derives a sense of satisfaction.

And, finally, the child may fail to use his native equipment to the maximum either because of bad habits of study or of lack of interest on the part of teacher or parents. The interest of the worker may supply new stimulation and a new point of view through which the child may find that more satisfaction is to be gained by good school progress than by a refusal to meet his responsibilities in the matter of education.

To sum up, what shall we conceive as the broad aim of every social worker? She must first obtain a full knowledge

of the principles of mental hygiene, out of which will come a broader understanding of human conduct. It is then her task to translate this understanding into influence. Through the medium of this new found influence, she must assist the parents to gain a broader view—to be open-minded, less bound down by tradition, more willing to let the child grow and develop in surroundings that do not tend to repress and confine him.

The social worker may likewise assist the teacher to recognize the problem of the growing child, to see that education fails when it is confined narrowly to physical and intellectual development, that each child must be given an opportunity to gain self-expression and to develop his own individuality instead of being turned out at the end of his school career stamped with the trademark of the general mold.

She should help the teacher to understand also the numerous pitfalls awaiting the growing adolescent child, tossed about on the restless tide of his emotions, that through this understanding the teacher herself may be enabled to furnish constructive help and guidance.

But the fundamental task of the social worker is that of helping the child with whom it is her privilege to work to a better understanding of himself and his relation to the family and his associates. In every case of misconduct she should conceive as her aim the careful examination of all the elements that enter into the case. Only upon the basis of such knowledge should she attempt the reconstruction of the child's environment, recognizing that no concrete rules can be laid down, but that each case requires a specific plan of action, fitted to its especial needs.

MENTAL HYGIENE AND THE COLLEGE STUDENT—TWENTY YEARS AFTER

ANONYMOUS

THE striking paper, *Mental Hygiene and the College Student,* read before the American Students' Health Association in Chicago last December and printed in the April number of MENTAL HYGIENE, may well arouse speculations in the minds of all college students and graduates in connection with the situation that the author describes.

The extent to which attention to mental hygiene is needed in our American colleges may perhaps best be understood by the study of what happens to college graduates who have had to get along without it. It occurred to me, a graduate of a generation ago, to go over the list of my classmates and see what might be gathered along these lines from my friendship with a few of them and my acquaintance with a larger number.

I found that about one-fourth of my classmates I knew practically nothing at all except such unenlightening facts as their residences and occupations and the dates of their marriages, deaths, etc., given in alumnal bulletins. So I confine my observations to the remaining three-fourths, of whom I know more, though in some instances scarcely more. Of these individuals I discover that about 40 per cent have, since graduation, shown signs of what I take to be neurotic, psychoneurotic, or even psychotic difficulties. Among this number are two-thirds of those who qualified for Phi Beta Kappa, and who, I might mention, include most of the most marked examples of mental and nervous diseases.

Of the deaths, which have occurred in 17 per cent of the class, I can only say that, so far as I know, all except two were from somatic diseases, though two-thirds of the deceased were among those classified as previously neurotic to some extent. One death was a suicide and another followed a strange coma that occurred a year after a serious operation, from which the patient never completely recovered, and im-

mediately after a prolonged visitation from an uncongenial parent. After the chief physicians in the city where the patient lived had puzzled over this collapse for two weeks, and each had elaborated a different theory for it, their bewilderment was terminated by the patient's death.

Another type of casualty that it would be interesting to investigate, if one had the material, is the causes for the withdrawal of students who left college before completing their course, and their subsequent careers. I make out vaguely that the most brilliant of these temporary members of my own class was a very abnormal individual who suffered later from a psychosis and is now dead.

Taking up the 75 per cent of my class regarding whom I know more or less—generally less, but enough, perhaps, for the purposes of a scratch diagnosis—and considering the 40 per cent of these whom I have designated as representing various sorts and degrees of nervous and mental disorders, I will give a few brief summaries of the types of difficulties from which they appeared to suffer.

A—One of the ablest members of the class, who received not only the highest marks for scholarship, but also the highest office in the gift of the student body. This individual, an only child of New England extraction, was, it appeared later, of a markedly, though long latent, manic-depressive constitution, and after achieving considerable success in a professional field, succumbed some fifteen years after graduation to this increasingly emerging and menacing type of disease. A long course of psychoanalysis resulted in marked improvement and the diminution of the frequency and severity of the alternations of the emotional states, but the prognosis has never been considered very favorable by the psychiatrist in charge of the case.

B—Perhaps the most brilliant member of the class, who subsequently attained to the rank of a college professor. The patient's career in two colleges was terminated by the onset of depressions, the first mild and lasting for only about six months, the second severe and involving two years of treatment in hospitals for nervous and mental diseases. Since the latest episode a few years ago, the uncongenial profession of teaching, in which success was attained at such immense cost

of vitality, has been succeeded by research work, for which this individual is eminently adapted.

C—An able student of the conscientious and thorough type, though personally very witty and original, this individual's painstaking and laborious methods of work having been clearly a compensation for felt tendencies toward indolence and dilettanteism. This was another only child of long New England ancestry. The tendency to a homosexuality somewhat above the average shown in undergraduate days developed later into what might be called a monogamic type of this character—one friend at a time and that practically for life. This is the patient whose last illness and death were so puzzling to the doctors.

D—The youngest member of the class and one of the most brilliant both in college and later. My earliest memory of this infant prodigy is of being awakened in the middle of the night in freshman year by the sudden sound of piercing shrieks and the tramp of the night watchman conveying the patient to the college infirmary. It transpired the following day that our young classmate had had "some kind of a fit." After performing able and devoted service in the foreign-missionary field, interrupted by several psychotic episodes, this patient came to an early death through a physical ailment.

E and *F*—Two very average students and ordinary personalities who were diagnosed by their fellow students as "darn' fools." Equipped with the compensating egotism of the true psychopath, they both embraced learned professions for which they had no natural endowment and in which they ignominiously failed. One is dead, and the other now occupies an insignificant clerical position.

G—One of the rather numerous neurotics, a good student and valuable member of society in subsequent years, of a rather narcisstic trend and somewhat markedly without heterosexual interest. This individual has had attacks of "nervous prostration" and has had recourse to sanitariums, with apparently good results.

H—An ordinary student and rather attractive personality, somewhat homosexual in college, who later contracted a marriage with an individual of another generation, and who has

met the difficulties arising from this situation in what would appear to be an hysterical way.

I—A moderately good student and agreeable personality, inclined to be a bit "wild" in college, who had a distinctly psychoneurotic episode during the period of college life and was obliged to remain away for a year. This student married soon after graduation and very soon died of a somatic ailment. The family history showed several cousins, and later the patient's only sister, in institutions, "hopelessly insane."

The question that most naturally suggests itself is to what extent these morbid trends would have been distinguishable during the college years and how much could have been done at that time to counteract them. It is, of course, difficult to answer these questions with any fulness after the passage of a generation since graduation. A few incidents that occur to the memory, however, may indicate that in many of these cases an inkling of the real facts might have been gained by an intelligent mental-hygienist on the spot at the time.

I remember that one of the freshman themes in a class in English composition was *Memories of Childhood,* from which a considerably enlightening mass of evidence might have been adduced by an investigator. One of the themes considered good enough to be read aloud to the class by the instructor and later published in the college magazine was, I remember, the composition of the student *A,* and in connection with this the instructor was moved to remark that a better title would be *Confessions of a Morbid Child. B* came of a distinguished and somewhat neurotic family and was rather "high-strung." *C* was abnormally reserved, mature, and indifferent to the lighter side of college life. *D* clearly might have been identified by the "kind of a fit" that landed this precocious youngster in the infirmary. *E* and *F* were clearly recognized as what they were, though at that time the word psychopath in its modern connotation was not even in the medical vocabulary. *G, H,* and *I* were all "different" enough in their various ways to attract even then the notice of a competent observer. The single suicide I did not personally know well enough in college to comment upon now, except to remark that this student was distinguished chiefly by being "rather gay" and thereafter by being among the first to marry. As

the disaster occurred within a few years after graduation, there was probably something beginning to go wrong much before that.

There seems to be no reason to think that the ratio of neurotics exhibited by this particular class is unusually large. The class had the reputation of being rather more commonplace than its contemporaries, and if commonplaceness spells normality, it might pass for a good example of the average. It is sufficiently clear to one who has any intimate acquaintance with the individuals of this class that many of the catastrophies in later life were closely connected with and occasioned by mistakes in the choice of an occupation, even if the more fundamental causes were other and more obscure, and that perhaps many of the most serious breakdowns might have been prevented if there had been more intelligent guidance in the selection of vocations to be followed after graduation.

If, indeed, so large a proportion of mental difficulties and disasters attend the subsequent careers of the members of the ordinary college class, this high liability to accident would seem to deserve attention and to emphasize in no uncertain terms the importance of a systematic mental hygiene for college students.

MENTAL HYGIENE PROBLEMS OF NORMAL ADOLESCENCE*

JESSIE TAFT, Ph.D.
Director, Mental Hygiene Clinic, The Children's Bureau, Philadelphia

"NORMAL ADOLESCENCE" is a combination of terms that may perhaps be considered contradictory. If by normal one means average, and at the same time implies painless adolescence or adolescence without conflict, then certainly there is a contradiction. For the adolescence that occurs without stress and strain is too unusual to be called normal, and if it were the usual thing, it would have no mental-hygiene problems to be discussed. What we must mean, therefore, is the mental-hygiene problems that arise in practically all ordinary lives at adolescence, disregarding those extremes of maladjustment which seem to point toward serious mental breakdown.

If one thinks of human life as the continuous struggle of a segmental organism so to organize its various needs and interests with relation to a social and physical environment that it goes forward successfully—satisfying itself and winning social approval at the same time; striking a balance between a dynamic safety attained by courageous, intelligent action and a static safety that means regression and avoidance of action; substituting, as far as intelligence permits, expression for repression, independence for dependence, objective for subjective, and concrete interests for dreams—then adolescence inevitably presents a crisis, a possible turning-point, a place where the struggle must necessarily be more aggressive and effortful if it is to result advantageously for the organism.

The ideal of adjustment that mental hygiene holds before us might be stated in this way: The organism is able so to coördinate its own cravings that they can be expressed satisfactorily and objectively in socially approved ways. This

* Read before the Mental Hygiene Section of the National Conference of Social Work, Milwaukee, June 23, 1921. Reprinted by courtesy of the *Annals of the American Academy of Political and Social Science.*

implies that organisms use their intellects or intelligences in meeting the facts of every situation squarely, and work out their satisfactions in terms of those facts. They use no indirect, evasive, or subjective means to escape the problem of wrestling biological success from the world of men and things as they actually are. In other words, the healthy adjustment is the scientific adjustment, which controls situations by mastering the facts in the case and manipulating them with intelligence and skill to carry out the ends of the individual. It is never to be forgotten that the most important situations which the human being has to meet are social, and that the facts he has to understand and work with for the solution of his problems are social, too. The way human organisms behave is as important for him as the reactions of the physical environment. There is no moral reason why the organism may not use any control it can work out, but, as a matter of fact, no thoroughgoing control can be attained on any other than a realistic basis. All other methods are subjective and illusory and break under the strain of living. If the mental-hygiene goal for human beings is biological fulfilment, success, objective expression of the great human interests, independence—in short, full-grown adult individuals who face life in a positive, aggressive, constructive way—then we must examine adolescence to see wherein it presents peculiar and unusual obstacles to all young people in the attainment of such an ideal. Why should life become more difficult at that point and hold so many possibilities of disaster?

Adolescence seems to be a crucial point which tests out the wholesomeness of the previous development. It is the point at which the individual takes on two selves. To adults around him, he is still a child when they wish him to conform to their desires; when he fails to accept authority and brings down condemnation for his behavior, he is reproached by the adult in terms of his age and approaching manhood. "Jimmie is almost a man. Doesn't he know a man doesn't do so and so?" But when Jimmie asserts his independence, he is quickly returned to the unfree state of childhood. Inside of Jimmie a similar conflict rages. At times he feels himself a free, independent individual who can go forth courageously into the world, leaving the oppressive weight of family authority

and interference far behind him. But there are moments when he seems so helpless and alone in an uncharted country that nothing short of his mother's reassuring presence brings any relief. Whether Jimmie will be able to keep his face turned steadily, frankly, courageously toward the world of independence and responsibility, and slowly, but surely deprive himself of the comfortable protection of the family and maternal solicitude, depends upon everything that has gone into the making of Jimmie up to this point.

There are two lines of inquiry we should have to make to determine what Jimmie's chances are and what his problems are likely to be—first, as to the development of his work or play life; second, as to the development of his love and sex life. We want to know whether Jimmie has carried both his work and love interests beyond the subjective, auto-erotic stage over into an objective fulfilment, as far as his ability and environment permitted.

First, on the work side. Is he occupied for the most part with realizing concretely his work, or, if you wish, his play interests? If he wants a wagon, will he cry or sulk or have a tantrum until his father gives in? Will he steal a wagon? Will he brood over it, dream about the wonderful things he could do with it, but make no effort to get it? Or will he apply himself energetically to some plan for earning the money or building a wagon of home-made materials? How difficult is it for Jimmie to put his desires into effective action? How difficult is it for him to get what he wants in terms of the facts as they are, without evasion, antisocial behavior, or substitution of daydream fulfilment? Moreover, one must ask how interested is Jimmie in work and play? Has he a plentiful supply of interests, and have most of these interests definite, concrete ways of getting expressed? That is, has Jimmie both the drives and the developed techniques for realizing them? Whether or not he has will depend not on Jimmie alone, but on the entire background to which Jimmie's behavior has been a response.

If Jimmie has been under a strongly repressive discipline; if all of his attempts have been discouraged or subject to ridicule; if environment has limited too greatly his opportunities; if health has prevented aggressive or effective

action; if some inferiority, real or imagined, physical, mental, or social, has developed a habit of non-aggressiveness, a fear of attacking a new project, a hesitancy to go over into positive action, a tendency to evade responsibility because of fear of failure or exposure of weakness, then we may expect to find adolescence producing the most critical problems. A child who has grown up on the subjective plan, who has never learned to deal squarely with facts or to win approbation by legitimate efforts, or who has gone into compensatory activities of an antisocial or auto-erotic character, has been able to put off the results of such methods of meeting reality because of his childhood. The family, even the school or the foster family, will accept many such bad adjustments as a part of childhood without realizing how serious they are.

With adolescence, however, comes a point when life looms up, and even the family cannot continue to protect the child from his growing years. He must begin to get the come-back from his habits of poor adjustment. The patterns he has been using will not work in a world outside of family protection. If he has not been accustomed to finding active, concrete expression for his interests, the sudden flood of new energy, the widening of the horizon, the social impetus that youth receives, will swamp the motor apparatus. He has no techniques developed and has not the habit of trying to develop them for every new interest. These vague, but powerful forces coming in upon the old situation are difficult enough to harness into actual achievement, even with the best efforts of adolescence. They imply the subtle, elusive, complicated techniques of social relationships and community life, the creative expressions of art, with techniques that take a lifetime to master—the complicated processes of all the various enterprises of an adult world. They involve not only difficult techniques, but the willingness to free onesself from the economic support of the family and take on responsibility for one's own living. There is a tremendous fear to many young people in the thought of economic independence—no money to fall back on unless you are able to earn it. Supposing you should lose the job! No father, with open pocketbook, to help you out, no comfortable home to drop into when work gets unpleasant. When that realization is suddenly forced

upon the adolescent, there is often real terror behind it, and it requires a genuinely healthy, courageous habit of meeting the problematic situations in life to adjust to it without evasion.

A very unstable girl of eighteen, who has been forced to work since she was fifteen because she has no family back of her, resists work and changes jobs frequently, but is obsessed by fear as soon as she is without work. She has contemplated prostitution, and has gone so far as to go with one or two men for the sake of an evening's entertainment. But the fear she feels when she is not working is too great to allow her to depend on men friends completely, and she resists the loose living unless she has a good job. Her dislike of work, her fear of growing up, are so great that the necessity for working has been registered almost as a compulsion. Needless to say, she also fears adult sex life and is held back by that.

This particular girl, whom we will call Alice, illustrates the adolescent conflict when there is too great a pullback, too many obstacles in the way of normal growth. Her early home life turned her against men and sex because her father was an abusive drunkard, unable to support the family. Her mother put all of her love and desire into the indulging and spoiling of Alice. Alice was taught to dress above her station and to feel herself better than others. She was the petted, adored, only child. Then the mother died, leaving Alice to an unsympathetic, overworked old grandmother, whom Alice has never ceased to blame for her lost childhood and its pleasures. Alice submitted, but never accepted this change of living. She never ceased to long for the mother and the delights of adoration and dress and pleasure obtained without effort.

The grandmother died, leaving Alice without any one, penniless and with not even a common-school education. She goes to work without skill or training, hating the grandmother and even her mother for dying and leaving her to such a fate. She has never developed the kind of initiative and persistence that will enable her to get education by night work. She is not strong. She craves pleasure. She blames other people and fate for every misfortune. She develops an evasive way of meeting every unpleasantness, every

failure of hers on a job. She is often late to work, she resents correction childishly, she is unreliable, stays away if she has the slightest pain, wants a lot of attention, has no idea of business etiquette. When she loses a job, the employer or a fellow employee is to blame.

Adolescence increases the yearnings for a home, for a mother to fall back on. The only other outlet she can see leads to the pleasures that mean sex—cabaret, movie, dance hall. Alice is afraid of sex. She resists the idea of marriage. What does she want with children? Look how her mother suffered and in the end had herself and a baby to support.

So Alice is caught with no developed interests, no techniques, nothing to stabilize or inhibit the regressive impulses. When one talks with her, one gets the full force of the adolescent yearnings. She wants to be somebody, to do great things, to be superior. In her good moods, she is overwhelmed with dreams of accomplishment. She pines to use good English, to be a real lady. There is pathos in her inquiry as to what you say when a boy introduces you to his mother and how to behave in a stylish hotel dining room. Such questions have an importance that is almost greater than the problem of how to keep straight sexually. Winning of social approval is an ever-present, burning desire, but she has no patterns, no habits, no control over the daily details of the process whereby this is gained. When one tries to place her in a good environment with girls of a better class, she reacts with a deepened sense of inferiority, expressed in more open, boastful wildness. She invents adventures with men to dazzle these virtuous, superior maidens. The craving for pleasures and something to make her forget increases.

What one would do, if it were possible, is to hold Alice long enough to see her through the learning of some skill or technique in which she could be really superior and by which she could earn a decent living. The difficulty is that, owing to the amount of instability that has been developed, it requires almost constant supervision just to keep her in one place physically, as well as to hold her to the daily effort of mastering a hard task. It also takes a great deal of money, for which no guarantee of success can be held out.

It is not strange that youth finds it hard to buckle down to

concrete accomplishment. The urge of life is so intense, the dreams so quick and glorious, the actual process so slow. Dorothy, a youngster who by temperament and every handicap of environment had learned to depend almost entirely upon daydream fulfilment, found herself at seventeen facing the problem of earning a living. She had not one single worked-out process to make her useful to any human being. She was unstable, imaginative, impatient, undeveloped to the *n*th degree. It looked like a hopeless proposition. All the authorities predicted ultimate breakdown and failure. One faithful person took her into her own home, provided a stable background, and concentrated all her efforts on holding the child to learning one technique by which she could become self-supporting. There were ups and downs—she ran away, she stayed out all night, she made living a stormy affair for her friends, she quarreled with every companion. She had to be held down to studying her lessons at night by the constant attention of an older person. Her course in stenography was interrupted by absences and bad behavior. In the end the worker on the case triumphed. The child completed the course and took a job. She had developed a genuine skill. Although her work record for a long time consisted of one job after another in rapid succession, the fact that she knew how to do one thing well always brought her back to working and its possibilities. The periods of keeping one job grew longer, the upsets less damaging to work. Friends held on. After three years, when some of the adolescent conflict had abated and the growing skill as stenographer had begun to have its effect, we find our unstable girl steadied down into a well paid, reliable worker, whose emotional upsets are understood and adjusted to by her without giving up work.

We have been following the development of the play and work interests of the individual and trying to show how a subjective, regressive development—or call it a lack of development, if you wish—leads to greatly heightened conflict at adolescence because of the increased pressure of internal as well as external forces.

On the side of the love interests, the development of social relationships which can be separated from the work side only arbitrarily, we find a similar situation. The individual whose

love life and social interests have broadened progressively and have taken on a more and more objective character meets the effort required of adolescence to face adult sex and social responsibility with courage and positive striving. The individual who, because of some inferiority, real or imagined, physical or mental, has tended to depend upon mother love or family tolerance, and has avoided the possible criticism of an outside world by shutting himself away from others and comparison with them, will easily find in adult love and heterosexual relationships something too difficult to be faced. He will desire either to remain in the sheltered family situation, where he is loved no matter what he does or is and where as a child he can cling and depend and feel no responsibility for loving back again, or he will find in the world some one who will accept him on the same basis, and allow him to remain infantile or childish in his love needs.

Such a condition is, of course, often produced not by any essential weakness of the individual, but by a combination of circumstances—an infantile or unsatisfied father or mother using the child in a selfish way to appease his or her own love needs, preventing it from growing away from the parental attachment as it normally should; the widowhood of the mother forcing the boy to take the father's place and attaching his love for life; the handicap of a long physical illness or extreme delicacy reinforcing the ordinary resistance to going over from the certainty of mother love to the winning of heterosexual love under conditions of rivalry and possible defeat; the accident of circumstance which deprives the girl or boy of contact with the opposite sex at a time when the transfer of love interest is ready to be made and conditions him or her to homosexual or auto-erotic expression; the repression which puritanical adults, teachers, parents, schools, orphanages, put upon the normal heterosexual impulses of adolescence. When one contemplates all the influences that are at work to prevent the courageous, objective development of love and sex, one wonders why adolescence ever follows a normal biological course.

Alice illustrates almost all of these influences. She is held back from maturity by the pull of childish cravings for mother love and protection. What she wants is not the objective

adult love of one independent individual for another, but subjective satisfaction. She is not looking for the kind of man whom she can love with a real appreciation of his qualities and a sharing of his interests; she is looking for any one who will give her the sense of security, the spoiling and indulgence, that the mother supplied. Alice seeks not a mate, but some one to devour. She will consume her love object. She is not motivated by any dreams of home and children. Her hunger is for a pleasureful, care-free existence in which she is responsible neither for work nor for love. Even on the physical side of sex, Alice has no desire for adult expression. She has all of the repressions which he mother's hatred of men, her father's behavior, and conventional sex taboos could produce. Theoretically, she is as prudish as any carefully guarded virtuous maiden, but her practice and her theory are as separate as the poles. Alice sins, but she refuses to embrace her sin. Physical sex is a disgusting fact of life to which she yields because it buys the pleasures that are essential. Her conflict is none the less real for its inconsistency.

What can we do practically to meet the complicated problems of adolescence? How can we lessen the struggle or lend strength to the forward-looking interests and impulses? If we wait until adolescence has begun, we shall have a difficult task. But granting that most of the adjustments should have been made earlier and taking adolescence as we actually find it, what is possible?

We can surround youth with encouragement. There need be no sneering superiority, no ridicule, no tyrannical authority, no dogmatic overruling, nothing to undermine the confidence and assertion that are necessary to approach work and love on an adult basis.

We can have young people as free as possible to develop their own interests, free to discover for themselves, to experiment, even to make mistakes. We can give them freedom to experiment in the ordering and control of their own group life as well as their individual interests.

We can recognize and supply the need of youth for interpretations of life, ethics, religions, philosophy, scientific and social theory — something general enough to be mastered verbally and used to reduce the chaos of a new world to a

known and familiar thing; something to make life a safer, more manageable affair. Adolescence craves a unifying theory to use as a stepping-stone from the safe limits of childhood to a boundless universe, otherwise too strange to be faced.

Parents and schools can see to it that youth is supplied with definite skills and techniques, that potential interests go over into action. They can show young people how to gain an objective happiness in creative work. They can so equip adolescence that it will not be left defenseless in the face of an adult world, with only dreams to offer.

The family can reduce the pullback of childhood by encouraging economic independence, breaking away from home, going away to college, widening the social interests to extend beyond the family circle. The parents can keep their love for the child objective and unselfish and welcome his growing independence and heterosexual interests.

Last and most important, if we are wise enough and grown up enough ourselves, we can give the adolescent an interpretation of sex and human behavior that will enable him to face frankly his own cravings and inferiorities, real or imagined, and to adjust to them in a positive, constructive spirit.

Sex instruction as now provided in the public school is not equivalent to assisting youth to a happy emotional adjustment. Like Alice, one may know the facts of sex and hate them. Can we provide parents and teachers so well adjusted and understanding that they can take the adolescent at the critical moment and, through their own courageous and positive attitudes, show him the way? For he needs not only to face sex and learn to look forward to love and marriage; he needs even more to accept himself, honestly and frankly—to recognize inferiorities and abilities and learn the lesson of compensation.

I can leave you no better picture of adolescence and its cravings than this phantasy taken from the diary of Dorothy, the sixteen-year-old girl whose struggle to meet the realities of working life I described earlier in the paper:

"I am between heaven and earth. I float, as it were, on a dream cloud which carries me up at times into a glorious atmosphere and again nearer the mucky earth, but always on, always on. I see not man, I see not the children of man, the

big Me lies in my head, in my hand, in my heart. I place myself upon the throne of Kings, and tramp the dusty road, care-free. I sing to myself and call me pretty names; I place myself upon the stage, and all mankind I call upon for applause, and applause roars to me as the thunder from the heavens. I reason that mine is not inevitable stage-madness which comes to all females of my pitiful age; mine is a predestined prophecy, mine is a holy design, my out-coming is a thing to be made way for.

"I bathe myself in perfumed waters, and my body becomes white and slender. I clothe myself in loosened gowns, silks as soft as thistledown, and I am transported to scenes of glory. The even stretch of green, bedecked with flowers to match the color of my pale gold gown, is mine to dance and skip upon. A lightness and a grace comes into my limbs. What joy is mine! I leap and spring and dart in rhythm with nature, and music leaps from my steps and movements and before my eyes are men. Men and women and children with heads bent forward, with eyes aglow with wonder, and with praise and love for this essence of grace and beauty which is I. What more, what more! I hang upon this idol of a dream, but it is gone. The height of happiness is reached; alas, even in dreams there is an end to happiness, the bubble bursts, and the dust and noise of earth come back to me. I shut my eyes and ears to these and seek consolation among the poor. In dreams I go often among them. With my heaping purse of gold, I give them clothes and beds to sleep upon, I give them food to nourish them and me, to nourish and refresh my fame. But do I give my gold away, and does my purse cave inwards? Ah, no! Come to my aid, my imagination, for thou art very real to me to-day. An endless store of gold is mine in banks of state. My name is headed on the lists of all, my money does increase even as I hand it to these poor. The poor bless me, they kneel and kiss my hands. I bid them rise, and the hypocrisy of my godless soul bids them pray and in this find restoration.

"I grow weary as I walk, and truth is even harder yet to bear than ever before. I am sad, I have nothing, I am no one. But I speak soothingly to myself, bidding me treat my hungry self to food, and I promise that the night shall be long and the dreams and journeys many."

SUICIDE IN MASSACHUSETTS

ALBERT WARREN STEARNS, M.D.
Boston

AS one of the phenomena with which society has to deal permanently, voluntary, self-inflicted death or suicide has attracted the attention of philosophers and scientists of all ages. It has been inferred that suicide was very common in classical times, was comparatively rare during the Middle Ages, and has increased since. This increase, to which every writer on suicide calls attention, is easily demonstrable during the past hundred years, or since vital statistics have been kept. Wherever such statistics have been collected, an increasing suicide rate is found.[1] Much has been written on the subject, the best analysis, perhaps, having been made by Morselli,[2] who concludes as follows: "The certainty of the figures and the regularity of the progressive increase of suicide, from the time when statistics were first collected to now, is such and so great even in respect to countries different in race, religion, and number of inhabitants, that it is not possible to explain it otherwise than as an effect of that universal and complex influence to which we give the name of Civilization."

There is a universal belief that life is now more complex and that the struggle for existence is more difficult. If this is true, it is to be expected that more people should fail and resort to suicide. But what are the facts? No data are at hand and in so far as written opinions are concerned, each age has had its complexities and difficulties analogous to our own. The theater and the romance were lamented one hundred years ago, as are the dance and the movie to-day, and proof is lacking to show that the personal life of the individual is more hazardous than formerly. There is, however, some evidence of an hyperæsthetic condition, or increased

1 This is well shown for American cities by Hoffman, who found that the peak was reached in 1915, with a rate of 21 per 100,000 population. See Suicide Record of 1919. *The Spectator*, December 2, 1920, pp. 11-15.

2 See *Suicide: An Essay on Comparative Statistics.* By Henry Morselli. London: C. Kegan Paul and Company, 1881, p. 16.

sensitiveness to stress. This is the opposite of stoicism. Our demands are more, and what our ancestors took as a matter of course we regard as a hardship. In this sense the struggle has increased. It has been suggested, too, that the decline of the death rate may result in the survivors being less vigorous than formerly and so more susceptible to suicide.

With the idea of gaining some light upon the subject, the National Committee for Mental Hygiene engaged the writer to study a series of cases of suicide in Massachusetts, for the purpose of determining, if possible, their causes. As a background for such a study, it was necessary to investigate to some extent the whole subject of suicide in Massachusetts. This report, therefore, is in two parts—one dealing briefly with the general subject of suicide in Massachusetts and the other with the particular cases studied.

Part I

A study of the suicide rate in Massachusetts for the last seventy years shows that there has been an irregular, but certain increase.[1] In 1850, the rate was 4.9 per 100,000 living persons. (See Table I, page 758.) This reached 14.1 in 1893, 13.9 in 1908, and 13.9 again in 1915. Though the rate fell off a little during the war, as is usual, it is already ascending again, being now around 13. This means that there are about 500 deaths by suicide a year throughout the state. This does not include the certain percentage of unknown deaths that are surely suicidal, nor does it give any idea of the daily stream of attempts at suicide treated in the accident wards of our great hospitals.

How shall we explain this striking increase? What changes have taken place to bring it about? Are they individual or environmental? Statistical studies in other fields reveal changes in certain phases of life that may possibly have a bearing upon the suicide rate.

[1] There is very satisfactory material for statistical analysis in this field, as registration reports contain data on suicide since 1841, and since 1885 a good deal of detail is to be found in the reports of medical examiners, who investigate every death by violence. This material has frequently been analysed, notably by Dewey. See Statistics of Suicide in New England. By Davis R. Dewey. *Publication of the American Statistical Association*, Vol. 3, pp. 158-175, June and September, 1892.

One of the most noticeable changes in the Massachusetts census reports has been the increase in the population of cities and the decrease of the percentage of the population living in rural communities. (See Table II, page 759.) Inasmuch as suicide is constantly greater in cities, and especially in large cities, this suffices to explain a considerable amount of the increase. In the year 1900, the rate for Boston was 13.7 and but 9.3 for the whole state. In 1905, the figures were, respectively, 14.4 and 9.9; in 1910, 15.4 and 13; and in 1915, 19.7 and 13.9. Hoffman[1] shows that in Berkshire County, with an increase in urban and a decrease in rural population, the suicide rate increased from 2.7 to 5.9 per 1,000 deaths. Whether there is something inherent in urban life that predisposes to suicide, or whether those individuals whose handicap leads to this act tend to accumulate in large cities, is a problem that offers a promising field for sociological research. However, the rate for the state is now higher than the old Boston rate, so other factors must be at work.

Another striking change in recent years has been an increase in the divorce rate. (See Table III, page 759.) In 1870 there were 26 divorces per 100,000 of the population; in 1917, the rate was 68.6. At the same time the marriage and birth rates have both gone down, and illegitimacy and homicide have increased. All these changes represent to some extent the effect of custom upon human conduct. Divorce represents escape from a disagreeable situation; but its increase would indicate a relaxation in social discipline that has favored it. So it may be with suicide. Anticipating, for a moment, some of the facts to appear later, it may be assumed that self-destruction is a more or less instinctive reaction to certain depressive states of mind, especially despair, which implies loss of hope. This is comparable to the blow in anger, and represents emotional expression. It is a means of escape always open, and so in the past church and state combined to check it by repressive measures. In studying cases, one can easily see why most of the individuals

[1] See Suicide and Modern Civilization. *The Arena*, Vol. 42, pp. 680-695, May, 1893.

concerned committed suicide. A more perplexing question is, Why do not certain forlorn, sick, and friendless ones end it all? Undoubtedly the pressure of public opinion, as expressed by law and church restriction, has had a restraining influence. Suicides have actually been buried ignominously in the highway in Massachusetts,[1] and many have been refused the rites of the church. A hundred years ago, such sermons as *Suicide: An Atrocious Offence Against God and Man,*[2] and *The Guilt, Folly, and Sources of Suicide*[3] were thundered from the Protestant pulpit; now many clergymen secretly condone the act. From this it would appear that change of custom is represented by an increased suicide rate. Public-health measures framed to reduce this cause of death must, therefore, either restore the public opinion that acted as a check on suicide or find a substitute.

Attempts have been made to show that the suicide rate varies according to an economic law. This has been done largely by the use of facts that may be related merely by coincidence. For instance, the highest suicide rate in Massachusetts was 14.1 in the panic year 1893, and the constant decline of suicides during wars has been attributed to the fact that every one had a job at high wages. To determine, if possible, the influence of economic factors upon the suicide rate, the writer made three comparisons of this rate in Massachusetts—with savings-bank deposits, with Gibson's Index of commodity prices, and with unemployment.

Savings-bank deposits have risen from $5.58 for each person of population in 1834 to $251.49 in 1915. A careful study of the annual rise and fall of the percentage of increase of savings-bank deposits and the suicide rate shows little if any correlation. For instance, in 1851 the deposits increased 9.79 per cent with a suicide rate of 5.6; the next year the per cent of increase of deposits was 12.5 and the suicide rate was 7.3. In 1893, we have a low deposit rate—2.06—and a high suicide

[1] See *A Glance at Suicide as Dealt with in the Colony and in the Province of the Massachusetts Bay.* By John Noble. Massachusetts Historical Society Proceedings, Set 2, Vol. 16, pp. 521-532, Boston, 1903.

[2] By Reverend George Henry Watkins. London: Cox and Son, 1818. 32 p.

[3] By Samuel Miller, D.D. New York: T. and J. Swords, 1805. 72 p.

rate—14.1; in 1894 deposits were 2.68 and suicides 9.2, but in 1895 both deposits and suicides increased, being 4.44 and 10.2 respectively.

Figures on the prices of commodities are available since 1890 in Gibson's Index. (See Table IV, page 759.) Again no correlation is shown. In 1890 the index number was 43.4 and suicide 8. The next year, 1891, the index number rose to 50.9, and suicide dropped to 7.4; in 1892 the index number fell to 45.3, and suicide rose to 10.2; and this lack of correlation continues.

The returns as to unemployment in Massachusetts have been made quarterly. (See Table V, page 760.) Both suicide and unemployment are seasonal, and the high point comes at opposite seasons, being in the winter for unemployment and in the summer for suicide. For the eleven years 1908 to 1918 inclusive, the mean annual percentage of unemployment was 8.76 and the suicide rate 13.21. In eight years unemployment was below the average and in three years above. Suicide was above the average in each of the three high years of unemployment and below the average in six out of eight low years. In the years 1912 and 1913, unemployment was 8.3 and 8.5 and suicide 13.7 and 13.6, so the failure to correlate was not marked. From this brief study there would appear to be a correlation between unemployment in general and suicide.

The relation between insanity and suicide will be discussed later in Part II, but it is noteworthy that during the period under discussion, Massachusetts has done more than almost any other community to alleviate the suffering of dependents, even to the point of tremendously expanding this group. During the six years 1913 to 1919, 2,936 suicides occurred in Massachusetts, and but 67 were in state institutions, though an average of 18,628 persons were under care.

Other factors on which data are available in Massachusetts are age, season, sex, and method. The curves for age correspond closely with those of other countries, with, perhaps, less child suicide. The maximum in females is younger and the increase has been evenly distributed. (See Table VI, page 760.) A good deal of reasoning concerning suicide has been based on curves showing total suicides in total population

without regard to the actual number of people living at each age. Dewey[1] showed clearly that old age is a factor and that the rate increases with advancing years. In the state census of 1915 the number of survivors at each age is given, and except for the period under ten years, the suicide follows the death rate in its gradual increase with advancing years. This might well be expected, as so many of the personal reasons for suicide increase with advancing years, while the joys of living often decrease.

Much stress has been laid upon the seasonal rise and fall of the suicide rate. In Massachusetts, as elsewhere, late spring and early summer show the highest rates, the winter the lowest, if we take any considerable number of years. Yet in any given year any month may be high or low. Just when mathematical coincidence leaves off and statistical fact begins is not clear to the writer, and neither is the reason for this seasonal distribution. It has been suggested that there is something corresponding to hibernation, followed by a period of low vigor. It is interesting to compare the rates below the equator with this in mind,[2] both seasons and suicide curves being reversed. To a casual observer it would seem that January presented more hardship than June.

Males predominate, as is the rule, but there has been some modification of the ratio. (See Table VII, page 760.) In the period 1851 to 1855, females made up .419 of the total. This ratio was gradually lowered, reaching .223 for a period of 10 years from 1875 to 1885, but has since increased up to the present time, having been .418 for the period 1915 to 1918. The explanation of this difference in rate may well be the relative infrequency of violence on the part of the female, though the recent so-called "emancipation of the female" should hardly have been accompanied by an increase in the relative number of female suicides.

Finally, as to method, the most conspicuous difference in method in this country is the more frequent use of firearms, though the increase in the use of illuminating gas is also

[1] See note p. 753.

[2] Suicide in Australia: A Statistical Analysis of the Facts. By G. H. Knibbs. *Journal Royal Society, New South Wales*, Vol. 45, pp. 225-246, 1911.

striking. This is especially noteworthy since suicide by this method is usually more deliberate than by any other and so has a larger intellectual element.

An analysis of methods used in Massachusetts during the three years, 1916, 1917, and 1918, is as follows:

Method	Male	Female	Total
Firearms	326	37	363
Gas	215	137	352
Hanging	162	50	212
Poison	100	86	186
Drowning	78	67	145
Cutting or piercing	97	13	110
Jumping	21	20	41
Crushing	16	6	22
Others	6	2	8
	1,021	418	1,439

TABLE I. Suicide Rate per 100,000 of General Population in Massachusetts, 1850–1920

Year	Rate	Year	Rate	Year	Rate	Year	Rate
1850	4.9	1868	6.3	1886	7.5	1904	10.2
1851	5.6	1869	6.5	1887	8.0	1905	9.9
1852	7.3	1870	6.3	1888	7.8	1906	9.3
1853	6.3	1871	8.2	1889	8.0	1907	12.6
1854	7.4	1872	7.7	1890	8.0	1908	13.9
1855	8 0	1873	7.5	1891	7.4	1909	13.1
1856	8.9	1874	7.2	1892	10.2	1910	13.0
1857	8.3	1875	9.6	1893	14.1	1911	13.1
1858	6.9	1876	7.2	1894	9.2	1912	13.7
1859	6.9	1877	9.6	1895	10.2	1913	13.6
1860	9.2	1878	10.8	1896	10.3	1914	13.6
1861	7.4	1879	9.2	1897	8.7	1915	13.9
1862	7.4	1880	7.5	1898	10.1	1916	12.1
1863	5.4	1881	9.1	1899	9.8	1917	12.8
1864	5.2	1882	8.7	1900	9.3	1918	12.6
1865	6.2	1883	8.9	1901	11.0	1919	
1866	5.6	1884	9.6	1902	8.9	1920	
1867	5.6	1885	9.1	1903	10.7		

TABLE II. Population of Massachusetts at Each Census, by Groups Showing the Increasing Concentration in Places of 5,000 and 25,000, 1875–1920

Year	Under 5,000		5,000 or more		Under 25,000		25,000 or more	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
1875.....	542,368	32.8	1,109,544	67.2	967,388	58.6	684,524	41.4
1880.....	551,841	30.9	1,231,244	69.1	1,035,677	58.1	747,408	41.9
1885.....	528,849	27.2	1,413,292	72.8	1,035,362	53.3	906,779	46.7
1890.....	513,807	22.9	1,725,136	77.1	1,083,743	48.4	1,155,200	51.6
1895.....	465,662	18.6	2,034,521	81.4	1,067,326	42.7	1,432,857	57.3
1900.....	443,764	15.8	2,361,582	84.2	1,168,182	41.6	1,637,164	58.4
1905.....	428,871	14.3	2,574,809	85.7	1,134,007	37.8	1,869,673	62.2
1910.....	417,205	12.4	2,949,211	87.6	1,210,934	36.0	2,155,482	64.0
1915.....	393,102	10.6	3,300,208	89.4	1,269,643	34.4	2,423,667	65.6
1920.....	386,967	10.0	3,465,389	90.0	1,302,390	33.8	2,549,966	66.2

TABLE III. Divorces per 100,000 of General Population in Massachusetts, 1870–1918

Year	Number	Rate per 100,000	Year	Number	Rate per 100,000
1870	379	26.0	1905	1,554	51.7
1875	577	34.9	1910	1,929	57.3
1880	580	32.5	1915	2,252	61.0
1885	645	33.2	1916	2,301	60.9
1890	654	29.2	1917	2,635	68.6
1895	954	38.2	1918	2,351	60.2
1900	1,258	44.8			

TABLE IV. Gibson's Yearly Index Numbers of Prices of 22 Articles of Food, 1890–1921

Year	Index number	Year	Index number	Year	Index number
1890	43.4	1901	44.5	1912	62.6
1891	50.9	1902	53.5	1913	58.1
1892	45.3	1903	49.0	1914	60.8
1893	46.0	1904	48.3	1915	64.0
1894	43.4	1905	47.2	1916	74.9
1895	42.0	1906	49.8	1917	110.8
1896	34.0	1907	50.9	1918	122.8
1897	37.7	1908	54.2	1919	121.4
1898	38.7	1909	59.2	1920	127.0
1899	41.6	1910	59.3	1921	80.3
1900	44.2	1911	56.9	3 mo.	

TABLE V. Unemployment in Massachusetts, 1908–1918

Year	Per cent of unemployment	Suicide rate	Year	Per cent of unemployment	Suicide rate
1908	14.2	13.9	1914	13.0	13.6
1909	8.0	13.1	1915	10.7	13.9
1910	7.5	13.0	1916	4.8	12.1
1911	8.1	13.1	1917	7.2	12.8
1912	8.3	13.7	1918	6.1	12.6
1913	8.5	13.6	Average rate	8.76	13.21

TABLE VI. Death and Suicide Rates in the Several Age Groups in Massachusetts, 1915

Age	Population	Deaths	Suicides	Death rate per 100,000	Suicide rate per 100,000
1–9	699,152	13,917	0	1,990.5	0
10–19	617,293	1,632	14	264.4	2.3
20–29	705,348	3,234	99	458.5	14.0
30–39	588,946	3,823	90	649.1	15.0
40–49	470,446	4,825	103	1,025.6	21.8
50–59	317,447	6,058	102	1,908.3	32.1
60–69	180,975	7,323	64	4,046.4	35.3
70–79	87,399	7,613	24	8,710.6	27.4
80–89	23,235	3,988	8	17,168.0	34.4
90–99	2,071	654	3	31,578.9	*144.8
100+	46	25	0	54,326.0	0

*3 deaths in year. Usually 1 or 0 in this age group. Only 7 in 20 years, 1898–1918.

TABLE VII. Distribution of Sex Suicides in Massachusetts, 1851–1918

Year	Males	Females	No. of females to 100 males	Year	Males	Females	No. of females to 100 males
1851–1855	262	110	41.9	1891–1895	909	228	25.0
1856–1860	361	115	31.8	1896–1900	1,124	265	23.5
1861–1865	295	99	33.5	1901–1905	1,161	320	27.5
1866–1870	323	96	29.7	1906–1910	1,509	461	30.5
1871–1875	498	132	26.5	1911–1915	1,848	518	28.0
1876–1880	574	128	22.3	1916–1918	1,016	424	41.8
1881–1885	660	194	22.3				
1886–1890	651	182	27.9	Total	11,091	3,272	29.5

Part II

Much of the knowledge concerning suicide is based upon analysis of statistics and comparatively little upon case study. Medical contributions have for the most part dealt quite largely with suicide as a symptom of insanity, although the psychology of suicidal ideas has received considerable atten-

tion of late, especially from the Freudian school. Those having the most to do with suicide in this state—that is, medical examiners—have confined their study largely to the medical-legal aspects and especially the determination whether or not a crime has been committed.

For the purposes of this paper, the suicidal act may be considered as an emotional expression, seeming at times to be almost instinctive. It often appears to be a reaction to certain states of mind, corresponding to the blow in anger or to flight in fear, or any gesture. It may be conceived as a superlative in expressing the emotion of negative self-feeling. Just as the most extreme expression of rage is, "I'll kill you," so an analogous expression in grief is, "I wish I were dead." In fact, a great deal of the legal reasoning concerning homicide may be applied to suicide, and cases of self-destruction fall roughly into three groups, corresponding to the three degrees of murder.

In anger there is an impulse to strike. The blow may be directed at a door or a tree. The blow, and not its result, is the important thing to be considered. To be sure, certain cases involve premeditation, and the intellectual element seems important, but analysis reveals that in most cases at least emotion is dominating reason. So it is in the case of many suicides. This negative self-feeling leads to a distinctive turning upon self, the person wishing to kill himself rather than to die. In all the cases of suicide in which it was possible to gain an understanding of the emotional state of the individual, one thing was constant—viz., depression, often involving despair and the loss of all hope, the single exception to this being the type of case in which suicide was merely a complication of previous homicide, the joint act seeming to spring from rage based upon jealousy.

So two questions arise: (1) What factors in the career of the human being arouse those emotions that express themselves in suicide? and (2) What types of individuals, when depressive emotions are aroused, take their lives?

To anticipate a little, it would appear from our study that anything which may cause unhappiness may cause suicide; but it does not follow, necessarily, that any person will com-

mit suicide if sufficiently unhappy; the individuals who do so seem to belong to a selected group.

As our group consisted of only 167 cases, the number is too small to warrant a statistical analysis; nor is this necessary in view of the fact that extensive statistical studies have been made by others. It may be worth while, however, to present a few facts not available in ordinary statistics, and to mention a few others for purposes of comparison.

Most writers, especially Morselli, give each race a definite place in the scale of liability to suicide. It is interesting to see that for the most part the same relative positions are maintained in our environment. One striking exception occurs, however—viz., the Irish born. Irish statistics on suicide place this race uniformly near the bottom of the scale, yet it will be seen by the following table (Table VIII) that they commit suicide out of proportion to their number in Massachusetts. It will also be noted in the table that the Germans have an excessive rate. Furthermore, previous studies in suicide have shown its relative frequency to be greater in the upper stations of life. Inasmuch as the foreign born in Massachusetts are frequently to be found in the lower social groups, it is remarkable that they should have contributed 44.4 per cent of the suicides, while forming only 31.2 per cent of the population.

TABLE VIII.

Per cent Distribution by Country of Birth of Foreign-born Inhabitants of Massachusetts and of Suicides among Them, 1915.

	Per cent of total foreign born	Per cent of suicides among foreign born		Per cent of total foreign born	Per cent of suicides among foreign born
Ireland	18.2	20.0	New Brunswick	2.6	5.2
Canada	12.0	5.2	Germany	2.5	9.4
Russia	10.7	9.4	Turkey (Armenia)	1.9	2.6
Italy	10.6	6.7	Greece	1.6	1.2
England	8.3	16.2	Austria	1.0	6.7
Poland	7.2	1.2	France	.5	1.2
Nova Scotia	6.9	5.2	Switzerland	.1	1.2
Sweden	3.6	5.2			

An analysis of the character of residence of our series shows that 51 out of 160 whose residence was determined lived in a lodging or boarding house. This calls to mind a similar condition recurring in a series of 107 cases studied at the Massachusetts State Prison, 40 individuals of that series having been living in lodging houses.

No accurate census of the number of employed is available at the present time, but of our series but 62 were steadily employed at the time of their death; 36 were unemployed because they were unable to obtain work, 62 because of sickness or old age, and 7 for unknown causes.

The degree of education is given below, but unfortunately inferences cannot be drawn from this because of the large number whose education could not be determined and because of lack of data for comparison.

Education of Group Studied

Less than 8th grade	47
8th grade	39
High school	18
More than high school	7
Unknown	56
	167

Similarly we could not determine in more than 72 cases whether or not life insurance was carried, but of the 72, 44 had and 28 had not insurance. No clues were obtained in any case as to the relation between insurance and suicidal act.

No religious census of Massachusetts is available except that of the United States Census of 1916. According to this, about 71 per cent of those reported as church members were Catholics, but less than one-half the population were reported as members of any church. The Catholic religion is well known to have a low suicide rate in countries where this can be accurately studied, and while data for a final judgment are lacking, it would appear that the Catholic rate is somewhat higher in our series than would be expected.

Religion of Group Studied

Protestants	77
Catholics	54
Jewish	4
Unknown	32
	167

According to the census of 1915, 55.5 per cent of the adult population of Massachusetts are married. It will be seen that a considerably smaller percentage of our series had married, and that a considerable number had separated. The large number of widows and widowers of course is due to the relative old age of the group.

Marital State of Group Studied

Married	79
Single	45
Widower	19
Widow	11
Separated	8
Divorced	3
Unknown	2
	167

The relation between economic conditions and suicide has already been mentioned, and it is noteworthy in our series that 105 of the individuals were in perfectly comfortable circumstances. However, it should be noted also that economic stress is a relative thing, individuals who have nothing except a small weekly wage living contentedly, whereas the rich man who loses an appreciable fraction of his fortune is most unhappy. So in our series the economic factor seems to be a diminution of what the individual possessed rather than actual dependency.

Economic State of Group Studied

Comfortable	105
Marginal	28
Dependent	23
Unknown	11
	167

During the period beginning November 1, 1920, and ending April 1, 1921, there were reported in Massachusetts 167 deaths by suicide. These have been studied as far as possible, and form the basis of the study of individual causes. One of the first things noted was the infrequency with which a solitary cause operates. Even with those definitely insane, oftentimes some outward stress seems to precipitate suicide, while in those not insane usually several factors are involved. It is possible, in most cases, however, to say that the pressure to the act comes from within, as in insanity, or from without as in cases of extreme adversity. So our cases will be grouped in the following categories, as indicating the predominating features of the case rather than the single cause of the suicide.

Predominant Causes of Suicide in Group Studied

Mental disease (insanity)	65
Physical disease	25
Delinquency	15
Senility	9
Alcohol and drugs	9
Psychoneurosis	8
Abnormal personality	6
Domestic strife	3
Loss of employment	3
Death of spouse	3
Miscellaneous	7
Undetermined	14
	167

It will be seen from the above that mental disease or insanity is by far the greatest single factor in suicide, 65 persons, or 32.92 per cent, presenting symptoms indicating psychosis. This is in agreement with most modern writers, who usually estimate one-third of the cases of suicide as due to insanity. It is, of course, impossible to make a post-mortem mental examination, and aside from a few cases in which an adequate diagnosis had been made before death, judgment is based almost entirely upon an interpretation of the history as obtained from friends, relatives, and physicians. Of this group 28 appeared to have the depressed phase of manic-depressive insanity, 10 senile psychosis, 2 dementia praecox, 2 epilepsy, and 2 paresis, while in 21 cases it would seem futile to attempt classification.

Mental Disease

The following cases illustrate the general situation to be found in cases of insane suicide. In this group it will be seen that emotional depression is constant, but in addition the limitation of responsibility reduced the degree of inhibition exercised by the patient. Also, these are cases in which the depression is due to disease and is entirely auto-genetic.

Case 143: A woman born in England, married, aged forty-two, developed depressive ideas and mild delusions of persecution. She bought a revolver and attempted suicide, and was committed to a state hospital. After nine months she had improved so much that she was allowed to go home on a visit. Her symptoms continued in a mild form, and after two months she eluded her family and disappeared. A few days later her body was found in a nearby river. The hospital diagnosis was involutional melancholia.

Case 17: A woman of twenty-six, born in Poland, married, after a great deal of domestic strife was assaulted by her husband. He was sent to jail. She later developed auditory hallucinations or delusions of persecution and became violently excited. She attempted to kill herself on several occasions, once by strangling and once by stepping in front of a street car. She was committed to a state hospital, where, after a few days of mutism, she hung herself in her room. A diagnosis of catatonic dementia praecox was made.

Case 26: A man of thirty-five, married, born in the United States, who had a poor employment record, had for ten years been growing rather irritable and suspicious. About five years ago he lost a job and complained of persecution and stomach trouble. This increased until he was committed to a state hospital. There he was rather inactive and apathetic, but somewhat depressed over his stomach trouble. He was found hanging in the toilet one morning. Diagnosis: dementia praecox, hebephrenic.

Case 79: A man of fifty-two and a half, born in Ireland, single, had delusions of persecution, with some depression, for about a year. He was committed to a state hospital, but was released for a visit, as his family seemed able to care for him. One Sunday morning he went to his room to prepare for church. He was found later, having cut his throat with a razor. Hospital diagnosis: paranoid condition.

Case 102: A man, aged forty, born in Canada of French descent, developed depression and was committed to a state hospital, where a diagnosis of general paralysis was made. He was found hanging in his room, having left a note to his wife saying that he was going to kill himself because she had not visited him.

Case 131: A man of seventy-five, born in England, a widower, had a shock about five years ago resulting in a right hemiplegia. Since the shock he had been growing forgetful, complained of dizziness, had worried over money and his house, and for a month had been agitated and depressed, thinking that he was going to be turned out of the house. He was somewhat confused. He cut his throat with a razor. Diagnosis: organic dementia, depressed and delirious.

In these cases suicide should be regarded merely as a symptom of insanity. Though several of the cases cited have been in state hospitals, this gives no idea of the proportion of these cases that have received adequate medical care; the vast majority have never had a diagnosis of mental disease made. In certain instances individuals were recognized as insane by relatives and family physician, who were loth to send them to a state hospital because of the supposed stigma attached to commitment.

Physical Disease

The next group in importance is that in which physical disease, with resulting depression and loss of hope, seems to have been the important element. One frequently hears the term "institutionalization" used in characterizing the state of mind of the invalid. It will also be noted that these cases were all in advanced years.

Case 124: A woman of seventy-five, single, who had been a nurse all her life, became incapacitated through cardio-renal disease. She was in comfortable circumstances and receiving good care and showed no mental symptoms. She turned on the gas and was found dead in the morning.

Case 18: A woman of sixty-six and a half, a widow, in comfortable circumstances, had for years had violent attacks of ticdoloureux. She had been to many doctors without relief and at last had become a Christian Scientist. She turned on the gas while alone in the house.

Case 16: A man of seventy-six, married, with a happy family, had advanced cancer of the throat, which was extremely painful. He shot himself with a rifle.

Case 69: A man of sixty-seven who had been paralyzed and bedridden for twenty-five years was irritable and emotional and complained a great deal of pain. He shot himself in his bed with a revolver.

Case 147: A man of seventy-seven, married, had prostatic disease, with retention of urine, and complained of terrific pain. He wrote a note discussing his situation and shot himself.

Case 89: A widower of seventy-three, in comfortable circumstances, had arteriosclerosis, and one or two slight shocks. He lived with his son and daughter-in-law, with whom there was more or less friction. He turned on the gas on Thanksgiving Eve.

In all of the above cases, emotional depression had been present, as may be inferred from the suicidal act. Also some loss of intellectual vigor and emotional control may be inferred from advanced years. Yet there seemed to be actual adequate cause for depression.

Delinquency

The next group in size is that in which the existing cause of suicide has been delinquency.

Case 19: A man of forty-nine, born in Massachusetts, had an illegitimate child by the housemaid. Upon going to bed one night, he suggested mutual suicide to his wife. She refused. He got up in the night and cut his throat.

Case 105: A man of forty-two, single, born in Armenia, had an illicit affair with another man's wife. The husband returned and shot the offender, but did not kill him. He was subsequently taken to jail, where he cut his throat.

Case 13: A man of forty-one, married, with a good position, swindled his employees out of a considerable sum of money, and on the eve of discovery drank carbolic acid.

Case 121: A single man of fifty-six, under arrest and awaiting trial for sexual assault upon children, shot himself.

Case 118: A woman of twenty-eight, born in Italy, whose husband discovered an irregular sex life with another man, confessed the truth to her husband, but got up in the night and shot herself.

Case 56: A woman of thirty-seven, said to have been somewhat nervous, wrote a letter to her husband in which she stated that she loved another man and could not live without him, so turned on the gas.

It is generally stated in such cases that fear of punishment is the underlying cause of the suicide, but closer analysis reveals that humiliation, remorse, and depression are the important factors. The habitual criminal or delinquent rarely kills himself, unless he be an extremely abnormal person. Comparatively moral people, whose transgression is exceptional in their lives, appear more apt to kill themselves.

With Homicide

Four of this series of cases, of which the following two are examples, represent suicide as a complication of homicide.

Case 34: A man of thirty-five, born in England, who had married, but separated from his wife, became infatuated with a negro girl of twenty-two years. She rejected his attentions and complained of his annoyance. He met her on the street,

told her of his love, and upon her rebuffing him, shot her and then himself.

Case 12: A man of fifty, born in Armenia, who had been divorced from his wife, came to her house to discuss alimony. Immediately upon entering, he shot her and his two sons, who came to her rescue, and then shot himself.

It is difficult to say whether these cases represent a person determined to kill himself and to take another with him, or whether the act is primarily homicide. Every case of homicide with suicide that has come to my attention has been that of a man enraged by jealousy, who has killed a woman and then shot himself; in my opinion, therefore, the suicidal act does not represent a discreet entity, but should be regarded as a complication of a particular type of homicide.

Advanced Age and Helplessness

Attention has already been called to the advanced age of the group in which physical disease was the most prominent factor. A number of cases, while not in excellent health, could not be said to be sick, and the outstanding feature in their case was advanced age and helplessness.

Case 26A: A man of eighty, who had lived alone for many years in his store and had prided himself on his excellent physical condition, shot himself during the night. He was a widower, and, while not dependent, was in danger of becoming so. He was a man much liked, but was always said to be on the "off side."

Case 13: A man of eighty-four, who had boarded for years in a family of friends, as he was a widower, and who was in comfortable circumstances, had complained somewhat of decreased vigor and was found dead from gas.

Alcohol and Drugs

The period of depression following an alcoholic spree seems to favor suicide.

Case 36: A married man of thirty-seven, after a protracted debauch in which he lost his job and his wife, was arrested and left in a cell in jail. He hung himself during the night.

Case 46: A man of fifty-eight, single, who had been a spree drinker all his life, saved up a substantial sum of money and

went on a spree. He was intoxicated most of the time for a few weeks, and had spent all his money, so that he had to borrow from the landlady. He could not sleep or eat, and turned on the gas.

Psychoneurosis

It is ordinarily believed that psychoneurotics are not prone to self-destruction. When we consider the relative frequency of these conditions and the extreme emotional excitement that they exhibit, the fact that but eight of our series were in this category would indicate that death from suicide is relatively infrequent among them, though suicidal attempts are common.

Case 120: A single man of forty-three, a college graduate, had been neurotic and unstable all his life. He was a musician by profession, but had developed a tremor of his hands that prevented his working. While undergoing a course of psychoanalytical treatments, he took a dose of strychnia, which resulted in death.

Case 146: A man of twenty-nine, who had separated from his wife the year before and had recently been discharged from the army, complained of a sore mouth. He had been to many doctors, who found no organic basis for his complaint and diagnosed the condition as a psychoneurosis. He told his mother that he could stand the discomfort no longer and, going to his bedroom, took 40 grains of strychnia.

Case 57: A married woman of thirty-one had complained of various ills for many years, and had consulted many doctors. She had taken considerable veronal, and one day, while on her way home on a ferryboat, took a large dose of veronal, from which she died.

It will be seen that in the above group there was an underlying element of unstable personality, as well as symptoms of psychoneurosis.

Abnormal Personality

The following group is very similar and yet lacks active symptoms of psychoneurosis and represents the excessive reaction of a peculiar personality to rather inadequate stimulus.

Case 43: A single woman of forty-three, who had been a

deaf mute all her life, without occupation or interests, had complained a good deal of lonesomeness, and had some financial stress. She hung herself.

Case 3: A man of thirty-nine and a half was talented and successful, but moody and erratic. He read such literature as *Why Worry* and *Memory Helps,* and had some friction with his wife. Without any noticeable change as a warning, he was found dead from gas.

Case 14: A man of sixty-five had spent his life trying to get rich by making some great invention. He was considered odd and frequently left his family without explanation. Upon finishing one piece of work and while without occupation or funds, he hired a room at a lodging house and turned on the gas.

Case 77: A single woman of forty-five, who lived alone and was considered rather eccentric and unhappy, formed an attachment for a young man who boarded in the same house. Upon his going away and apparently rejecting her, she turned on the gas.

Case 26B: A man of twenty-one, married, born in Italy, who had been in prison a good deal of the time since childhood, was returned on another sentence. His wife wrote him a letter saying that she was through with him; whereupon he drank sulpho-napthol and killed himself. He had made repeated attempts at suicide and had been diagnosed as a case of constitutional inferiority.

Case 26C: A man of twenty-one, single, who had complained of ill health and had worried over the future, but presented no symptoms of mental disease, left a note saying that he had done exactly as his brother had done the year before. Search was made and it was found that he had tied himself to a tree and then shot himself, so that he would fall in the river, repeating the act exactly as had his brother one year before. This case illustrates the possibility of suggestion as a factor in suicide.

Death of Spouse

Cases immediately following death of spouse seem to be particularly deliberate, and the victims unusually free from abnormal mental symptoms.

Case 128: A man of fifty-two, in comfortable circumstances, attended his wife's funeral and dined with his family. After dinner, he stepped into the bathroom and shot himself.

Case 112: A woman of fifty-one, who had lived comfortably with her husband for many years, had but $300.00 in possessions at his death. She wrote a note explaining her act, and turned on the gas.

Unemployment

Whereas unemployment or loss of a job seems to have been an indirect factor in many cases, in no case could it be said to be the sole cause.

Case 83: A married man of fifty-eight years had been a successful salesman for many years. He changed firms and did not make good at the new work, so that he was left without a job. He was very anxious as to the future and seemed to grow old suddenly and finally shot himself.

Case 60: A widower, fifty-nine, had been a hackman all his life, but developed hernia, so that he had to change his work. He found difficulty in getting a job and was in financial distress. He went to a boarding house and shot himself.

While none of this series show suicide as an immediate reaction to the loss of a job, a number of cases have come to my attention, not included among these, where suicide seemed to be reaction purely to grief over the loss of a position.

Domestic Strife

Quarrel with a loved one, though it occasionally arouses rage, if the element of jealousy is present, in every case arouses extreme sorrow.

Case 97: A man of thirty-three, who had been married but a short while, had friction with his wife. He left her for a time and then returned and tried to affect a reconciliation. She refused; whereupon he returned home and shot himself.

Miscellaneous

Finally comes the miscellaneous group, the size of which is limited only by the number of cases in any series; but the general characteristic of the seven cases in this series seems to be reaction to an overwhelming sorrow.

Case 99: A man of fifty-two, born in Russia, Hebrew, had worked for many years and recently put his savings into a small store. Business was poor. He lost $1,000.00, and turned on the gas.

Case 93: A man of fifty-two, born in Poland, and happily married. His son-in-law had been very ill, at death's door. Then, as he seemed about to recover, he died suddenly. After a week of extreme grief, the father-in-law hung himself in the cellar.

Case 32: A watchman of forty, born in Austria, hung himself to a tree the night after his house had burned and his daughter killed in the fire.

Case 94: A woman of twenty-seven, married, born in Italy, visited a hospital, where her two children were very ill. That night she got up from bed and jumped from the window.

Child Suicide

Much attention has been attracted of late to the question of child suicide, all being called children who are under twenty-one. There were seven such cases in our series.

Case 11: A girl fifteen years, eleven months old had influenza two years ago, since which she has been seclusive, depressed, and frequently talked of suicide. Had been morose and sulky, staying by herself in her bedroom. Shortly after being called to breakfast one morning, she shot herself in the abdomen, dying later. The history of this case would seem to justify a diagnosis of dementia praecox.

Case 20: A boy of sixteen years and sixteen days, with eccentric parents, was a student in high school. The first year he had received poor marks; the second year he had failed in English, Latin, and French, but had been extremely good in military drill. He had been conditioned in his third year, and was approaching mid-year exams. He was described as "solitary and seclusive," "dreamy and listless," "reticent and diffident." He worried over his studies, frequently going to the teacher and asking for his marks. His parents were very strict. One Saturday afternoon, he went to an empty house and hung himself. There was a rumor that he had been forbidden to go to a ball game, but this was denied by his parents.

Case 29: A boy of seventeen years and ten months, born in Massachusetts, of French ancestry, a devout Catholic, had completed the sixth grade in school. Was said to have been a bright boy, and to have exhibited no abnormal behavior. He had been somewhat upset by the death of his sister one year before. He had done no work for two months, over which he had expressed some concern. He went to a dance with a girl friend, where his conduct seemed to be normal. Returning home at midnight, he undressed, put on his dead sister's black silk stockings, a one-piece black bathing suit, and khaki knickerbocker trousers, and wrapped his sister's skirt about his chest. Thus clad, he hung himself to the bedpost.

Case 47: A boy of sixteen, an orphan, with an excellent foster home, was in his second year in a preparatory school. He was slow in his studies. He had to repeat Latin the year before and to be tutored in algebra. His foster parents were ambitious to have him go to college. He was described as "a very sad boy," "easily discouraged," "no backbone," "shy and quite different." He had a deformity of his lower jaw, which made his speech hard to understand, and also caused difficulty in chewing his food. He had a plate made for his mouth the day before his death. Other boys ridiculed him because of his deformity. While returning from school one day, he alighted from a subway train and jumped in front of the next one.

Case 86: A boy of fifteen, born in Massachusetts of Irish parentage, a Roman Catholic, was an orphan, but had a good home with his paternal aunt. His sister is said to be hysterical. He was in his third year in high school, but for two years had been promoted with conditions. He had been warned four days before his death by a note that he must do better work in school or fail. Vision and hearing were defective, and he was clumsy and awkward physically. He went to school one forenoon and returned home at noon, going to the cellar to do some chores. He was found later hanging by a belt strap.

Case 132: A boy of sixteen and a half years, born in Russia of Hebrew parentage, had come to the United States at five years of age. He was in his fourth year at high school.

He was described as exceedingly bright, had done four years in three, and was on the honor roll. He was said to have been "quite unexpressive," "did not mix with other boys," and "did not talk at all." He was very cross to his family, quarreling with his other brothers and sister. He was very industrious, working assiduously in his father's store. He had been somewhat nervous for a year, and very fastidious about his food. One Sunday he had spent the whole day in the store cleaning it up. He ate no supper, but sat reading a story book. His brother said, "Why don't you study?" He replied: "That's my business." He was left alone at 10.30, when his parents retired. At 5.30 in the morning he was found in a bath tub half full of water, with the gas turned on.

Case 156: A girl of sixteen and a half years, born in Massachusetts, of Italian parentage, a Roman Catholic, worked in a paper factory. She was described as one of the best girls in the factory. She had mixed up a dose of Paris green the year before, following a suicidal threat. She had a sweetheart, with whom she went to church every day during Holy Week. He was planning to go away, and she feared that he would desert her. On Easter he had asked her to wait dinner for him, and she had not done so. Upon his arrival, he was angry, and she went to the cellar for fruit and while there drank Paris green. She was taken to a hospital, where she said that she did not want to die, and that she was extremely sorry, but she subsequently died. There was no evidence of pregnancy.

Summary

The results of our study lead to the following conclusions:

1. The suicide rate has constantly increased in Massachusetts since 1841, when records were begun.

2. This increase represents the change in the attitude of the public toward suicide; whereas, formerly, an attempt to take one's life was considered sacrilegious, or at least cowardly, and the church and public sentiment stood strongly against such conduct, to-day there would seem to be little public sentiment against suicide, and religious groups are more inclined to condone than to condemn.

3. Suicide may be regarded as an expression of emotion

of negative self-feeling, and so can be caused by any unpleasant experience. In this state the individual's desire is not to die physically, but to kill himself—that is, his personality. In his depressive frame of mind, the feeling against himself as an individual has become so deep that he would blot himself out. As in anger he may kick an inanimate object—this being the only gesture that for the moment will satisfy his emotion—although the end result, an injured foot, may be anything to his liking, so, at the depth of negative self-feeling, the blotting out of his hated personality is the only gesture adequate and this is accomplished, but at a price.

4. Individuals who commit suicide form a selected group, one-third of whom are frankly insane, while most of the others show some limitation of responsibility.

5. If suicide is to be prevented, three suggestions may be made: (a) that there be more widespread recognition of the importance of depressive states of mind; (b) that the psychological problems involved in depressive states of mind be dealt with on a psychological basis, the physician whose advice may be sought endeavoring to understand and to meet the psychological problems, both conscious and unconscious, that may be the source of the negative self-feeling rather than attempting to treat symptoms through "good cheer," homily, and platitude; (c) that further consideration be given to the question whether the present general sentiment, that suicide is justifiable or commendable, is desirable.

THE FUNCTION OF THE CORRECTIONAL INSTITUTION*

HERMAN M. ADLER, M.D.
State Criminologist of Illinois; Director, Institute for Juvenile Research, Chicago

THE term "maladjusted child" includes a great many and quite diverse problems. I shall confine myself to the consideration of institutions dealing with socially maladjusted children that are commonly grouped under the term of delinquent.

In Illinois, as in many other states, we have a number of institutions dealing with delinquent children. Two of these are maintained by the state—namely, the School for Delinquent Boys at St. Charles and the School for Delinquent Girls at Geneva. One very large school is maintained by the city of Chicago in coöperation with the Department of Education of Chicago and the county of Cook—namely, the Chicago and Cook County School for Boys. Then there are a number of detention homes throughout the state and private homes and other institutions, such as the House of the Good Shepherd for Girls and the Chicago Home for Girls.

All of these institutions are quite openly and specifically dedicated to the care of delinquent children. There are also, of course, a very large number of institutions, both private and public, throughout the state of Illinois which deal with so-called dependent children.

In the light of a recent investigation of several orphanages, a grave doubt arises as to whether such a distinction can be maintained or even whether it is wise to insist upon it. Dependency, feeblemindedness, and delinquency have so many points of contact, apparently, that it is more than likely that progress is seriously retarded by these very artificial distinctions whose justification seems to be based almost entirely upon sentimental rather than really practical grounds.

* Read before the Mental Hygiene Section of the National Conference of Social Work, Milwaukee, June 27, 1921.

We cannot go into this problem further than to point out its existence. Naturally we are not advocating the lumping of these problems together and expecting one institution to care for all types. The question is merely suggested whether we are not facing here another step in the progress of public opinion such as marked the change of attitude toward the insane when the old asylum was given up for the modern state-hospital idea, and whether the next step in the institutional care of delinquents is not, therefore, a change in our idea of the nature of the problem and the proper methods of dealing with it in these institutions. Should we not develop a new name to indicate this change of view and to replace the term delinquent by one less censorious?

Whatever the facts may be elsewhere in this country, we are compelled by the truth to admit that in Illinois we do not regard the correctional institution with the same confidence, not to say respect, that we are accustomed to feel toward, let us say, a first-class surgical institution. This is not due to any shortcoming on the part of those who are officiating in these institutions, but rather to the peculiar line of development in the field of juvenile delinquency.

Informed students of this subject, whose first-hand recollections go back even a single generation in the work, have frequently remarked upon the apparent change that has come over the types of delinquents who are sent to institutions.

This change may be partly due to changes in the nature of the population—one of the most commonly urged explanations. Another possibility is that the observers themselves have changed and, having become older, look back upon the conditions prevailing in the days of their youth as better than at present, a reaction of conservatism that is not unusual.

On the other hand, it may be that these observations are well founded, and the explanation is that probation now takes care of those children who formerly would have been "cured" in the institutions, leaving only the more incorrigible ones for the correctional schools. As Judge Arnold, of the Juvenile Court of Chicago, once remarked in regard to St. Charles: "If Colonel Adams can reform these boys that I am now sending him, he is a wizard, because by the time the juvenile court gets through with a boy and decides to

send him to a correctional school, it seems almost impossible that he can be changed by any ordinary human means."

That is undoubtedly the attitude that would be taken by the juvenile-court judge of any of our progressive courts.

The remarkable and far-reaching development of prevention and education that has resulted from the growth of the probation departments is unquestionably making itself felt in the institutional field. With the exception of a few of our less advanced communities, in the outlying districts of the state of Illinois, all the juvenile courts, especially the Juvenile Court of Chicago, are satisfactorily solving the problems of the great majority of cases that come up before them, so that they are not only "reforming" in the old sense all those cases that in bygone days would have redounded to the credit of the institutions as cures, but are actually sorting out for institutional commitment with ever-increasing accuracy only those cases which do not respond to educational and social treatment and which therefore are finally sent to an institution, not so much for what it is hoped to secure for them, but rather as a precautionary method of protection for the community. It is a last desperate hope, with the emphasis rather on the community's interest than on the child's.

It is no wonder, therefore, that our institutional staffs are not so sanguine about the beneficial effects of the institution as were those of a generation ago.

While all this may be important to a certain extent, it does not explain the main problem which crops out again and again in the study of delinquents, especially in institutions. That is, what is the difference between the delinquent child who is finally sent to an institution and the one who is successfully maintained on probation?

It is not the nature or the quality or the degree of his behavior difficulty, for every kind of delinquency that is represented by the institution population is found in larger proportions among successful parole cases.

It is not a difference in intelligence, for, in spite of certain evidence in support of that theory, further experience has not confirmed it. And, again, we know that for every feeble-minded person who has to be committed to an institution because of dangerous behavior, there are two or three, at

least, of equally low-grade intelligence who are safely kept at work in the community.

Probably no characteristic distinguishes the institutional from the non-institutional case more frequently than that of temperamental insubordination. One might almost say that the child who is sent to a state correctional institution in the main goes there because, in addition to his behavior difficulties, he has exhausted the patience of the authorities, first in the home and the school and then in the court and on probation and finally in those institutions which act as buffers between the correctional schools and the community, such as the truant schools, the detention homes, and, in the case of Chicago, the Chicago and Cook County School for Boys, which receives boys for no longer than three months.

The only generalization that seems justified on the basis of these statements is that when it comes to dealing with the delinquent child, no generalization will hold. Each is an individual problem; a trite and oft repeated statement, indeed, and yet do we apply it in our organizations? The juvenile courts, which do their work almost entirely on the basis of the individual case, of course, have demonstrated and will demonstrate increasingly the fact that it is by individual study and individual treatment that results can be obtained, often astonishing results. But in our institutions there is little evidence of this. Even in those institutions glowing accounts of which have penetrated to us in Illinois, where the work of reclamation is said to go on at a remarkable rate, it would appear that this work is little more than a picking over of the junk pile for the uttermost remnant of reclaimable material. The final residue remains, in a large proportion, if not the major proportion, of the institutional group, unresponsive to the group methods, the generalizing discipline, and the repressive social atmosphere which, under the guise of military or other discipline, serves merely as a cloak for ignorance or incompetence on the part of the institutional staff.

It is not my purpose here to call names, and, as I stated before, I do not believe that the institutional staffs are to be held responsible for this state of affairs. But the community itself must accept the full responsibility so long as it con-

tinues to hoodwink itself by clinging to the long discredited methods of repressive discipline as a cure for behavior difficulties.

And why should an institution's efficiency be made dependent upon the number of "cures" that it can demonstrate in its annual report? Such cures, it is true, may be the ultimate objective, but unless somebody has at present a specific curative method, which will work with 100 per cent efficiency—or even 90 or 80 per cent or any major fraction—with the consequence that the institution has merely to carry out certain precepts to obtain results, why should we demand such cures of our institutional staffs, especially in view of the fact that they are dealing with cases in which the elaborate and highly skilled juvenile-court staffs have failed?

This is not a field in which any one person may claim to have the answer—neither the psychiatrist nor the psychologist, neither the sociologist nor the educator, neither the jurist nor the penologist. The answer is yet to be found. But are we doing anything to find it?

Where is the correctional institution in which the entire energies of the staff are bent upon utilizing these unreclaimed cases for the obtaining of facts upon which to base logical action?

What institution in this country, even among those in which research is being conducted, can say that the *major* object of the *entire* institution is to conduct such research—of which it is not the truth to say, rather, that research is *also* being done?

And, finally, even where the will is strong, where is the institution in which the staff is not so weak in intelligence, in education, or in special training as to be almost powerless to accomplish anything in this field?

It is very satisfactory and gratifying to know that certain individuals have achieved results with certain small and carefully selected groups of individual cases, and it may be interesting to learn that they believe their success was due to the fact that they used a certain amount of tact in their work or started out with the idea that these children were "at heart like any other children," or because they have themselves "a knack" or "charm" or "a strong personality" and

so on. But what good does that do us, who are not gifted in this way, who are not able to select our cases, or who have not the climatic or other conditions which enabled a particular piece of work apparently to succeed? No facts have come out of these experiments beyond the fact that intelligence, refinement, and industry will achieve results in the field of juvenile delinquency, as elsewhere.

No one, to my knowledge, is in a position to say that by this and this rule can this selection be made, or that this or that quality indicates a favorable case or the reverse. It is all a matter of opinion, based largely upon personal prejudice or, if you do not like this term—to borrow a phrase from my friend, Mr. Albert Kales—upon "subliminal hunches."

When once the correctional schools change their attitude from that of more or less consciously assuming responsibility for achieving results in the nature of cures or corrections to that of experimenters, then may we hope that real progress will reward our labors. Then will the correctional school no longer assert pedantically that it is devised and equipped to change the delinquent into a well-behaved person, and more or less hypocritically hide its failures behind outward semblances of orderliness within the institution. Then will the courts, and perhaps the families of children with behavior difficulties, seek out the help of the correctional school as in acute disease they now seek the surgeon or physician. And the correctional school will no longer be the symbol of failure and of a forlorn hope, but will stand for knowledge upon which effective, purposeful, and intelligent treatment may be based; above all it will be the source of preventive measures which will still further reduce the number of cases requiring to be sent to such a school.

WHAT IS A "NERVOUS BREAKDOWN"?*

ALICE E. JOHNSON, M.D.

Psychiatrist, Municipal Court, Philadelphia; formerly Assistant Physician, Pennsylvania Hospital, Department of Mental and Nervous Diseases; Formerly Assistant Physician, Boston Psychopathic Hospital

AMONG the various avenues of approach that attract the scientific searcher after truth, there is hardly one that has so direct a bearing on the happiness and success of the individual life as that of modern psychiatry. And yet members of the medical profession, as well as laymen, are only just beginning to recognize something of the importance and breadth of this field of endeavor. It is the most neglected, and therefore the most misunderstood, part of that field that I wish to discuss.

What are the psychoneuroses?

What is a "nervous breakdown"?

Just what is meant by the word "nervous" when used as a description of a patient's condition?

I shall try to give a very brief answer to these questions in this paper.

Civilization was in the first place an expensive luxury. Like most luxuries, when indulged in for a time, it became one of the necessaries of life. The price of this necessary is continual conflict and eternal vigilance.

In the prehuman stage the fight begins in a blind, undirected way. It does not grow simpler as human reason is applied to the problem. Whether we start with Adam, just turned out of Paradise, or with an ordinary human infant, we see that the individual is constantly at war with his environment, trying to subdue it to his uses, trying to save himself from its power. We see that each step forward is made by some new victory over adverse forces, victory won only by tremendous and persistent effort. This is true of humanity as a whole, as well as of each member of the race. But for the individual

* Read before the Alumnae Association of the Woman's Medical College of Pennsylvania, Philadelphia, June 17, 1921, under the title, *A Modern Conception of the Psychoneuroses.*

the situation is immensely complicated. It is never a mere question of energy and clearly directed force. There are an endless number of uncertainties, of modifications, requiring a varied and continually changing equipment. It is evident that many a victory must go to the enemy.

And yet we know that the strain of the fight of humanity against the static forces of hostile nature has served on the whole only to raise the race to ever higher levels. The striving of man with man has at least sharpened his wits and helped develop his intellect. There is still another division of forces, the individual against society, but this, too, has a humanizing influence, tending to develop personality, and cannot be directly the cause of disease. We must go a step further, and here we may stop, for we can say that it is the struggle of the individual with himself that does the damage.

Human beings are made up of two naturally opposing streams of energy. The first goes back to the beginning of organic life, and consists of the instincts that have to do with the preservation and glorification of the individual life and those that continue and improve the life of the race. These two original types of instincts divide and subdivide and interlace with each other until only a few simple reflex acts can be said to have only one purpose in their working. Together they comprise all the wishes, desires, and strivings of the whole natural man.

The other stream of energy is made up of the civilization and the culture of the race and of the individual. For the person himself, this begins to operate as soon as the child is born. The instincts, being first in the field, can hold it against great pressure, and to a large extent they do so throughout infancy and childhood. Unless some outside limitation be imposed, the child does what he feels like doing, and when such limitations are encountered, his instinctive reaction against them is in direct proportion to the energy of the thwarted wish. If the child be normally impressionable and intelligent ("a proper child") or over-impressionable, the original reaction quickly changes in character. He becomes in time "trained," and takes on the semblance of a passable person. Just here is an important point, which I wish to stress. The early training of an impressionable child "sinks

in'' and becomes a part of his very self, so that the ideals molded into him at this time motivate his conduct throughout his life. The training of a child is, so far as it is voluntary, an endeavor properly to condition his reflexes, or in other words to teach him good habits and to supply him with what society would call moral ideals. The instincts are not destroyed by any sort of training, but are still there, on the alert for any chance of expressing themselves. In any child culture that is intelligent and purposive, and not merely haphazard, this fact is recognized, and some acceptable outlet for this energy is furnished. But even in the most fortunate cases there is some repression.

There are, then, two necessary parts of the personality—the instincts, caring nothing for society and clamoring with all the energy of the organism for their own satisfaction, and the social beliefs and ideals, saying with equal firmness, "Thou shalt not." What is to be done? It is a situation calling for a sincere and wise diplomacy, and that of the open variety. Up to this point in the individual's development, a normal mental and "nervous" life is still possible. The price of normality is an "open covenant openly arrived at."

But the mutual relations of the nations of the earth are frankness itself in comparison with the tricks and evasions and inconsistencies with which the egotistical instincts bargain with the ideal. The proceedings of this peace conference have engaged the interest of poets and artists since the beginning of human life. Religions and legends have taken this for their central theme. Fairy tale and folk lore are full of the story—the Snake in the Garden of Eden, Saint George and the Dragon, Anthony and the Adversary, the Devil and the Soul of the latest "Twice-born Man."

Normal people go into this struggle with the determination of winning a workable peace. How does the psychoneurotic carry himself here? He is afraid, and he tries to run away.

There are two elements in the reason for his failure. One is a sensitive, over-impressionable nervous organization, and the other is a defective early training. An over-sensitive organism is at the mercy of its environment, and a child of this type reacts to every stimulus with fear. If this fear reaction is not overcome by intellectual curiosity, or by a

common-sense relation to the facts of life, or by some other means that will develop in him a normal sense of proportion and balance, the individual's feeling of inadequacy and inferiority will continue to interfere with his adjustment. It is this feeling of inferiority that makes him afraid before the pressure of society, as it makes him fear the imperious demands of his own instincts. He is afraid to do what he thinks wrong, and he is afraid to do what he thinks right, and above all he is afraid to give up the safety of fixed ideals. One of the most characteristic things about the psychoneurotic is his tendency to fixation at a lower developmental level. He cannot grow up in his affective (emotional) life, because each measure of growth involves a giving up, and going out from a cherished place of safety into an untried world. He shrinks from this as one shrinks from a sudden step in the dark, where there is no footing.

We find women of thirty-five or forty holding fast to the ideals of eighteen, showing the romantic sentimentality that at the earlier age is but the sign of an outreaching, healthy personality, going to smash against instinctive desires that should have been achieved or outgrown long ago. Men, after the excuse of some financial reverse, or in an illness, will "act like perfect babies," becoming dependent upon their wives, as they were during early childhood upon their mothers. They have never given up their desire for the protection and safety of their first home. And so the psychoneurotic, in order to escape what seems to him an unbearable situation, tries to slip away unnoticed.

The way in which a particular person runs away will determine the kind of symptoms he will show. Perhaps the simplest way is through a physical pain or discomfort. If one has a headache in the morning, one cannot be expected to get up and face an uninteresting day's work, or to bear with patience the irritability of others, or to force oneself to a difficult moral decision. A sudden feeling of weakness is a remarkably good barrier against the necessity for finishing a painful duty. The experimental work of Cannon, Sherrington, Kempf, and others has shown how easily the autonomic nervous system becomes conditioned for such a service as this. Of course this process is unconscious. This individual,

who has over-accepted the high ideals taught him, and who demands of himself a higher standard of conduct than the average, must fool himself before he will be willing to fool anybody else. After the patient has developed some physical pain as a defense reaction, it is easy enough for him to believe the pain to be the cause of his inability for work, especially when he is being told so by the various doctors who treat him so ineffectually. Such a patient is much relieved to have his own occasional doubts overcome by competent authority.

Besides the physical-illness route, there are innumerable other for those people who must have stronger proof of their inability to meet the demands upon them. For the more conscientious individual, a method ready to his hand is mental depression. Of all known means for putting off until to-morrow a decision that should be made to-day, depression is the most effectual. In order to overcome difficulties, one must think about these difficulties. Yet feeling and thinking cannot be done at the same time. One or the other will obtain the "final common afferent pathway" of Crile. So long as the ground can be held by the feeling of depression, all clear thought on the subject must wait. Every time such a person begins to think about the trouble, the depression rushes up and drives away thought. And so the settlement is put off indefinitely.

When the conflict rages so violently as to threaten to arise into consciousness, some will develop serious phobias, compulsions, irritabilities, anxiety states, antipathies, indecisions, memory disturbances, depressions, suspicion, self-depreciation, over-scrupulousness, a general feeling of discomfort, and a vague fear of impending misfortune. Each of these will be found to have a definite origin. But whatever the symptoms, it is necessary that the patient remain unconscious of the connection with his desire to escape, for to bring this thing out into the open is to renew the fight. If the origin of the headache become clear, that way of exit is closed for the future.

So these symptoms are not under the control of the patient's will. It is difficult for laymen, and even for many in the medical profession, to understand this middle ground between organic disease, on the one side, and sheer pretense

on the other, and yet the situation is a very definite one, and the patient genuinely ill, for he doesn't really get out of the fight by any of these means. It is merely pushed below the threshold of his consciousness. If you are riding for a head-on collision, you shut your eyes to get away from the impact, but the crash and destruction are not any the less for that. In the case of the psychoneurotic, this shutting the eyes is the cause of the crash.

A psychoneurosis is the expression of an unconscious conflict.

The statement is sometimes made that a nervous patient "enjoys his illness." This enjoyment is comparable to that of a soldier on the firing line, who, while hating his present situation and trying to leave it, stumbles into the enemy's camp. Or, more simply, let us compare it to the enjoyment experienced by the proverbial acrobat, who, finding his position in the frying pan unsatisfactory, seeks relief by taking a header into a very hot fire. The enjoyment is hardly worth mentioning.

The psychoneuroses are not physical diseases, and they are not merely symptoms of physical disease. And they are not curable by physical means. Organic disease lowers the threshold and lessens the repressive power of the individual, and therefore may be the occasion of an outbreak of psychoneurotic symptoms. The real cause, we can see, goes back of any accidental occurrence.

The subject of this paper does not include a detailed description of treatment. From the conception of the cause of these troubles which is stated here, the general principles of the treatment will be obvious. They consist, broadly, in bringing the particular conflict into the consciousness of the patient, and of mobilizing his own moral forces to settle the business once for all, in an arena where clear thinking is the umpire.

The rational treatment demands, first of all, a clear understanding on the part of the physician of the psychological mechanisms involved. It demands a sincere and courageous attempt to determine what the particular patient's difficulty has been. No generalities or platitudes will be of the least use.

Such help as may be in a sympathetic attitude and a desire to soothe the patient is not sufficient for the serious business of curing a really sick person. The general advice to stop worrying, to go out and have a good time, or even to find some interesting work, will never touch the disease itself. Real work on the part of the physician will be required in the problem of finding out each patient's specific weakness and strength. And all the ability and skill that one has will often seem hardly enough to get the answer.

In conclusion let me emphasize the three ideas that I wish to convey:

First: The psychoneuroses are developed on a basis of an over-impressionability of the nervous system, in persons who have not had the kind, or degree, of early training that their particular constitution called for.

Second: The psychoneurosis is dependent upon the individual's conflict within himself, and not directly upon any outward circumstances.

Third: The process by which the symptoms of a psychoneurosis develop is unconscious, and thus is not under the patient's control.

I venture to predict that when the profession at large begins to accept this approach to the study of nervous manifestations of disease, the greatest stumblingblock in practice will disappear. The psychoneurotic will no longer be the helpless and irritating puzzle that he still too often appears, but will rather be one to be studied and helped back to the right way and remade into a valuable asset for the social body.

MENTAL HYGIENE AND THE PUBLIC LIBRARY

MARY VIDA CLARK
New York City

THE public library is assuming increasingly the function of guide, philosopher, and friend to the seeker after knowledge. An example of this amiable intention is an attractive little circular entitled *"Mental Science"* (the quotation marks are a part of the title), a pile of which lay recently for distribution on the desk where books are taken and returned at the public library of one of our half-dozen largest New England cities. The suggested reading on this topic included 74 titles of books by 46 writers. The list began with F. M. Alexander's *Man's Supreme Inheritance* and ended with Elizabeth Wilder's *Self Help and Self Cure,* which the accident of the alphabet placed cheek by jowl with Dr. White's *Principles of Mental Hygiene,* wedged in between this authority and the works of one G. L. Walton entitled *Calm Yourself, Peg Along, Those Nerves, Why Worry?* Between A and W the gamut was run from Ralph Waldo Trine's *In Tune With the Infinite* to William James' *Energies of Men,* from Horace Fletcher's *Menticulture* to Bergson's *Matter and Memory.* The most prolific writers, to each of whom four volumes were credited, were Arnold Bennett, Annie Payson Call, Horatio Willis Dresser, and George Lincoln Walton.

One wonders what would be the state of mental indigestion of an innocent and omnivorous reader who should attempt to consume this strangely assorted pabulum. Perhaps a discriminating person, if such a one could be imagined as tempted by this menu, might distinguish between "the feast of reason" and "the flow of soul" herein partially presented. But what a pity that the discriminating reader should not be found among the staff of the library or its professional advisers! A ribald outsider might be tempted to propose a companion piece to this little sheet entitled *"The Heavens,"*

which should list indiscriminately works on astronomy, astrology, and theology.

More recently there was to be found in this same library, obligingly offered for free distribution, a two-page multigraphed list of 25 books entitled *"Hints on Child Training."* In this were included admirable authorities on the so-called moral side, headed by Jane Addams and Felix Adler, and six books on the feeding of infants and children; also such attractive titles as *The Biography of a Baby, Concerning Paul and Fiammetta, The Trend of the Teens, The Girl in Her Teens, The Boy Problem in the Home,* and *The Child and His Religion.* The list did include G. Stanley Hall's *Adolescence,* but this was the only book of its kind.

This is a library which subscribes for MENTAL HYGIENE and the other leading psychological and educational reviews. It is, on the whole, remarkably well equipped with most of the books of the leading psychologists, psychiatrists, and educators of the present day. If one knows what one wants, it is easy to find it in this library; but alas for the seeker after truth who does not know his way about in the particular corner of the field of knowledge that he wishes to explore! The catalogue's classifications are in turn comprehensive to the point of bewilderment and strangely inadequate. "Mind and Body" is a rich classification, with 58 titles of a bewildering variety, and it passes the reader on to other labyrinths by directing him to "See also 'Animal Magnetism,' 'Brain,' 'Dreams,' 'Hypnotism,' 'Idiocy,' Insanity,' 'Mental Healing,' 'Nervous System,' 'Psychology,' 'Psychoanalysis,' 'Sub-Consciousness,' 'Suggestion.'" "Mental Hygiene" is as yet a somewhat arid classification. Under it are listed only the files of the quarterly of that name, the title of a book by one D. A. Gorton—*Essay on the Principles of Mental Hygiene,* published in 1873—and Dr. White's *Mental Hygiene of Childhood.* "Mental Healing" with 77 titles and "Psychic Science" with 62 are perhaps the richest of the classifications, both ranging from the works of Alexander to those of Worcester, and there is even to be found "Psychoanalysis," with the names of the works of Blanchard, Bradby, Brill, Coriat, Freud, Frink, Healy, Holt, Jelliffe, Kempf, Lay, Mor-

dell, Nicoll, O'Higgins, Putnam, Tridon, White, and *mirabile dictu* Southard and Solomon's *Neurosyphilis!*

This library has an admirable system of keeping on open, accessible, and labeled shelves the newer books. Some time ago the two shelves marked "Philosophy" contained 29 volumes, of which nine were on spiritualistic subjects and only one—Dr. Coriat's *What is Psychoanalysis?*—had any relation to the subjects that might be classified under "Mental Hygiene."

Is the situation represented by this library a typical example of our public libraries in general, and, if so, is it not the business of some one to help the generally overworked and underpaid librarians by putting at their disposal more accurate knowledge in this somewhat technical field than they can reasonably be expected to possess or acquire? Lists of books worth purchasing would be helpful, with good advice as to their distribution—for instance, which should be put on shelves for the general public, including the ubiquitous and inquisitive young person, and which should be kept behind locked doors for the use of teachers, pastors, physicians, intelligent parents, and other qualified persons. Perhaps individual physicians and informed laymen might make it their business to look into the state of affairs at their own local library and offer the help that would doubtless be most gratefully accepted by these so conscientious and public-spirited librarians who strive to serve the people of their communities and who heartily deserve the coöperation of those who could do with ease what they naturally can do only with great difficulty. As a means of popular education, there is perhaps no better way than to make readily available the best books on mental hygiene and related topics. Here is a field where a very little effort would probably have great results.

INADEQUATE SOCIAL EXAMINATIONS IN PSYCHOPATHIC CLINICS*

DOROTHY Q. HALE

THE medical profession has found an ever-increasing function for organized social work in connection with hospitals, as is shown in the history of the development of hospital social service in this country. The first need for hospital social service in the United States was felt in the latter half of the nineteenth century, when physicians appealed to the Charity Organization Society for assistance in detecting fraudulent use of free clinics. In 1884, the New York Charity Organization Society "undertook to examine for the German Dispensary the ability to pay for treatment for such of its applicants as were referred."[1] The next step in this country toward a broader duty for the hospital social worker was the after care of patients discharged from hospitals for mental disease. The New York State Charities Aid Association, stimulated by the work of an English association called the Society for After Care of Poor Persons Discharged Recovered from Insane Hospitals, the function of which was to care for discharged patients in the community in close coöperation with the medical superintendent of the hospital, established in 1905 similar work in some of the hospitals for mental disease in that state. From New York the movement spread to many hospitals for mental disease throughout the country.

In the same year, Dr. Richard C. Cabot established at the Massachusetts General Hospital a social-service department, the function of which was to aid the physician in diagnosis and treatment. Miss Ida M. Cannon, in her book *Social Work in Hospitals,* says that Dr. Cabot "found in the social worker

* Submitted and accepted in partial fulfillment of the requirements for the diploma in the Smith College Training School for Social Work, August 30, 1921.

1 See *Dispensaries: Their Management and Development.* By Michael M. Davis, Jr., and Andrew R. Warner. New York: The Macmillan Company, 1919, p. 44.

a potent means for more accurate diagnosis and more effective treatment.'"[1] At the present time, this opinion among physicians has spread very widely, and psychiatrists express a general need for the findings of a social examination as an element on which to base their diagnosis and treatment. The purpose of this paper is, however, to raise the question whether a sufficient number of social examinations are made in psychopathic clinics.

The social examination is the collection of social data concerning the patient's past and present life and the bearing of these data upon his present situation. It should include knowledge of the traditions, characteristics, and habits of the group in which the patient has passed his life, as well as information in regard to the manner in which he has reacted to his group standards. The social worker obtains this through interviews with the patient's relatives, friends, and former neighbors, and from professional people, such as the school teacher and the family physician, who have come in contact with him. It is of the utmost importance that she should be able to estimate the value of the information that she collects: the informant, whoever he or she may be, may never have been in a position where he could obtain accurate knowledge of the facts that he is giving; his memory of them may be mistaken; he may be either wilfully or unintentionally misinterpreting them; or he may be deliberately giving misinformation.

The social worker also consults any documentary records that may be pertinent to the case; and here, too, she must be careful to criticize intelligently the source of the record. She observes for herself the actual home conditions of her patient. She has time to cover a field and to develop a technique in regard to the social examination that would be impossible for the busy physician.

Dr. Walter E. Fernald, in his clinic for mental defectives at the Massachusetts School for the Feebleminded at Waverley, makes the social examination a part of the routine of the clinic. In enumerating the hands through which the patient passes in the process of the examination, Dr. Fernald

[1] *Social Work in Hospitals; a Contribution to Progressive Medicine.* By Ida M. Cannon. The Survey Associates, 1913. p. 15.

says: "A trained social worker investigates the economic history, the social history, and the evidences of character defects, and immoral or criminal records."[1] Dr. Bernard Glueck, in an article entitled *Special Preparation of the Psychiatric Social Worker,* lays emphasis on the importance of the social investigation to the psychiatrist. He teaches his students "how important it is, for psychiatric diagnosis and treatment, to obtain a reliable picture of the setting from which the patient comes to the psychiatrist."[2] Dr. George H. Kirby, in discussing how social service can be of assistance in the diagnosis and treatment of patients says: "Physicians are realizing more and more the great importance of having a good history in every case before an attempt is made to arrive at a final diagnosis. No part of the entire medical record is more essential than the previous history of the case; in fact, without this information, many cases remain entirely unclear and no diagnosis at all can be made."[3]

Dr. William L. Russell, in his article *What the State Hospital Can Do in Mental Hygiene,* quotes Dr. Adolf Meyer as follows: "Through the demand for a thorough study of each case, the hospital physicians are confronted over and over again with the need of accurate knowledge of the constellation in which the patient came to grief. This quite naturally led to an attempt to visit the home or have it visited by some one who knew what was wanted."[4]

The above quotations show the theoretic desire of prominent psychiatrists for social service in connection with their work, and the following cases show instances in which physicians actually changed their advice as to the treatment of a patient after receiving a report of the social examination. These cases are selected from four different clinics, and, though one may not draw conclusions from so few cases, it does not seem unlikely that recommendations would frequently be

[1] See *The Out-Patient Clinic in Connection with a State Institution for the Feebleminded.* By Walter E. Fernald. MENTAL HYGIENE, October, 1920, p. 850.

[2] See MENTAL HYGIENE, July, 1919, p. 413.

[3] See How Can Social Service in State Hospitals be of Assistance in the Diagnosis and Treatment of Cases? By George H. Kirby. *The State Hospital Quarterly,* February, 1917, p. 183.

[4] See MENTAL HYGIENE, January, 1917, p. 91.

influenced if the data gathered through social examinations were at the disposal of the physician.

The first case is that of a widow, thirty years old, who had been committed to a psychopathic hospital and discharged on a trial visit to her sister with a diagnosis of manic-depressive insanity, and who was to report at regular intervals to the physician in the out-patient department. As she did not come at the stated time, the follow-up visitor called at her home and saw both the patient and the sister with whom she lived. The patient seemed depressed, and the sister said she had twice been excited since leaving the hospital—once breaking a window and once jumping into a pond in a public park. The sister added that she was unable to take her out to walk as advised by the physician because she herself was always followed by an enemy, a man who lived on the top floor. She became very emotional while talking, and the visitor was not surprised to hear from a third sister that there was no such man, and that she had considered this sister of hers also mentally unbalanced for some time. The third sister was able to get home only once a week, as she was in domestic service.

This situation was unknown to the physician at the time he recommended that the patient be returned to her home. When informed by the social-service department of the conditions surrounding the patient, he recommended placement in a new environment.

The next is the case of a single girl, twenty-two years old, who was brought to a psychopathic clinic for examination. At that time it was known that the patient had been in an ungraded class at school from eight until sixteen years of age, and then had been for several months at a school for mental defectives. After that she had held a position for a year as general housework girl, which she lost because her employer died. In her next position, which she held for a few months, she was very much overworked and finally left because she was assaulted by the man of the house. The physician pronounced her mentally defective; and, because she had held her position as houseworker for a year, recommended housework with some woman who could give super-

vision. The social worker interviewed the agent of the employment bureau of the Young Women's Christian Association, who was interested in securing positions for handicapped persons, and who thought she could place the patient, but on the day appointed for the patient to visit her, the patient's mother said that she could not possibly go because it was one of her "excited days," and explained that at menstruation she became unmanageable. The mother also said that at her former position, she was never left alone and never given any but the simplest sort of work, such as washing dishes or peeling potatoes. When this additional information was brought to the physician, he decided that it would be unwise to attempt to supervise the patient in the community and recommended that she be sent to a school for the feebleminded.

The third case is that of an epileptic boy, fifteen years old. The mother of the boy came to a social-service office asking advice in regard to his care. She said that she had taken him some months before to the mental clinic of a well-known private hospital, and that the physician had first advised commitment, but had then changed his mind, saying that she should care for him at home. The social worker found that the father of the boy had separated from his wife and was contributing only six dollars a week toward his son's support. The boy was difficult to manage and took all the mother's time and strength, and the only other child—a daughter who was not strong—supported the family. A visit to the clinic physician proved that he knew nothing of the home conditions and, on learning them, he recommended commitment.

Another case is that of an idiot girl, three years old, who is blind and entirely helpless. Her father came to the social worker's office in December, 1920, asking advice about commitment. The patient had been examined the previous summer at the clinic maintained by a department of public welfare, where the diagnosis of idiocy was made, but commitment was not advised although the parents were anxious for this. The social worker telephoned to the department of public welfare and was told that the patient could not be committed because the home was in good condition and the patient the only child to be cared for.

The social worker found that, four months before, the mother's father and two sisters of nineteen and seventeen, and a brother of fourteen, had come from Poland to this country and found no work and no place to live but with the patient's family. The patient's father was out of work and there were no savings, as money had been sent to relatives in Poland. The patient's mother was being treated by a physician, who wrote that she was suffering from general debility and that in his opinion she would not recover as long as the patient, who was heavy and needed constant lifting and handling, was at home. A letter was sent to the department of public welfare stating the situation, and nine days later a letter was received from this department saying that the patient had been sent to a school for the feebleminded.

The fifth and last case shows an instance where the physician changed not only his recommendation, but his diagnosis, as a result of the social examination. An English Jew, thirty-four years old, came to a psychopathic clinic in November, 1920, complaining of many pains and a great feeling of weakness. He was a tall, well-dressed, melancholy-looking man, who made on the whole a very good appearance. He said that he worked for a jeweler, his highest earnings being forty dollars a week. He gave his address and said that he lived with his wife and five children, and that there was some friction between him and his wife. The physician made a diagnosis of hypochondria and gave him a therapeutic talk.

The patient came again to the clinic about a month later and this time saw a different physician. He still complained of a great weakness, and after much questioning he told this physician that his married life was unhappy; that there had never been any love between him and his wife and that he had married her only because she threatened to go to court after the birth of a child by him. He said that she was a very poor housekeeper and refused to take any advice from him in regard to the children. The physician referred the case to the social worker, as he thought that the patient's neurosis would improve if he were freed from anxiety and given a chance to start again. The social worker visited the home and found that the family was living in two dirty, untidy rooms, in one of which they all slept—the daughter of eleven

in bed with her parents. The wife, who seemed very unintelligent, and whom the physician later diagnosed as mentally defective, complained that her husband worked for so few days during the week that she had no money to buy food or clothes for the children. The social worker then found that the family had been known to seven different social agencies, including the Society for Prevention of Cruelty to Children. The Jewish relief society first knew them in 1914, when the patient deserted his family for nine months. Shortly after his return, he was sentenced to prison for twice deserting the navy, and was later released in order to support the family, but refused to work, swearing at the vistor who offered to get him a job. It was suspected that he had sexual relations with one of his daughters. A prominent settlement house had also known the family for many years, but had been unable to carry out any plan of relief owing to the unreliability of both the patient and his wife. The man had agreed to get a separation from his wife, but refused to do so at the last moment.

After reading the visitor's report of her investigation, the physician changed his diagnosis from psychoneurosis to constitutional psychopathic inferiority. When the case was brought up in court in an attempt to break up the home and board out the children, instead of recommending to the judge that the patient be given another chance, free from worry, the physician advised that he be given the alternative of supporting the family or going to prison, and said that in his opinion he was an unfit guardian for his children.

The desire expressed by psychiatrists for social examination for their patients, and the actual benefit that was gained by the examination in the above cases and in others similar to them, make an inquiry into the extent of the use of social service in psychiatric clinics seem of interest. A study of the patients who were due to return in February, 1920, to a well-known out-patient department for psychopathic patients showed that of the 184 patients due, thirty-two—17 per cent—were already in the care of an outside social agency when they came to the clinic, and that forty-six—25 per cent—were referred to the social service by the physician in the clinic. The remaining one hundred and six patients—58 per cent—

received no social care beyond what was necessary to insure their regular visits to the physician, and hence no social examination was made. The study made by the writer of the medical histories which were obtained from these one hundred and six patients shows that in forty of them no social difficulty is suggested, but that in sixty-six, or over half of them, a social problem is indicated which it would seem should be investigated to show to what extent adequate care of the patient is handicapped, and to what extent the patient's condition is causing disruption in the home.

Some of the most important factors in these histories can be stated briefly as follows:

Boy of eleven. Diagnosis: manic-depressive insanity. In excited stages of illness runs away. Parents refuse commitment. Large family of other children. Impossible for family to give patient proper attention. Family does not understand situation. A better understanding might have been brought about under continuous social supervision, when at least instruction as to the best care of the boy could be given, and consent to commitment possibly obtained later.

Girl, twelve years old. Diagnosis: hysteria. Patient is "nervous" and scared in the dark. Afraid to read stories or go to the moving pictures, as she thinks of them constantly afterward. Father has heart trouble. Mother is rheumatic. Seven brothers and sisters, the youngest a baby. A social worker could probably help to readjust this patient through supervision, either in her home or in some other family.

Married woman, thirty years old. Diagnosis: psychasthenia. Confused, sad, and depressed. Has thoughts of suicide. Fears husband will divorce her. Apparently her trouble is not understood by her husband, parents, or only brother. Were this a social-service case, the social worker could learn the facts of the situation and instruct the relatives regarding the patient's health, urging them to consult the physician.

Young boy. Diagnosis: chorea. Father dead. Mother treated at nerve clinic for neurasthenia. Away all day at work. Patient goes to the public school from nine until four, and to the Catholic school for the rest of the afternoon. The record suggests the need for better diet and more rest and recreation, which might be obtained through social service.

Young single Jewish girl. Diagnosis: hysteria. Came to this country by herself, has no relatives or companions here, and lives alone in a boarding house. It seems as if the social service might have at least provided companionship and recreation for the patient.

Young married Jewish woman. Diagnosis: manic-depressive insanity. Came over from Russia a few years ago. Her relatives are all in the old country. She has lost her only child. Her husband is away at work all day, and she lives in a boarding house. This situation would seem to indicate need of supervision of the patient.

Three young girls with dementia praecox. The parents of the first are well-meaning, intelligent Jews who have no conception of the nature of the disease from which the patient suffers, and at present consider her perfectly well. The mother of the second is on trial visit from a psychopathic hospital, having had a "nervous breakdown," and the mother of the third is of low-grade mentality. It seems as if these patients would have a better chance of improving if their parents could be given insight into their condition, or, if this were impossible, a new environment could be found for them through social service.

Table I (page 803) shows the social symptoms suggested and the medical diagnoses of the patients involved.

A similar study of the patients reporting for six months in a prominent psychopathic clinic in another city gives the following facts. The total number of patients reporting was two hundred and fourteen. One hundred and nineteen of them were in the care of a social agency when they came to the clinic, and thirty-five of them were referred by the physician to a local mental-hygiene committee for social care. Sixty—28 per cent—of them received no social care, and the records of thirty-five of these sixty patients suggested social difficulties which are listed in Table II (page 804).

The last case on the chart, that of the patient whose family was unable to give sufficient supervision, is an excellent example of an instance where the social service apparently could have done something for the patient, had it been called in when the patient first visited the clinic.

An Italian boy, sixteen years old, was brought to the clinic on January 25, 1921, by an elder brother, who impressed the physician as being very intelligent. The boy had run away from home three months previously, and had been brought back two days before by the Traveler's Aid Society, who advised his attendance at the clinic. He had come from Italy with the older brother, eighteen months before, to join his parents and other brothers and sisters, who had been in this

Table I.—Social Symptoms and Medical Diagnoses of Patients Not Cared for by the Social Service, Who Were Due to Report in an Out-patient Department in February, 1920

Social Symptoms	Medical Diagnoses																
	Total	Neurasthenia	Psychasthenia	Hysteria	Dementia praecox	Manic-depressive insanity	Organic brain disease	Arteriosclerosis	Epilepsy	Psychopathic personality	Cerebral embolism	Feebleminded	Hydrocephalus	Alcoholism	Chorea	Diagnosis deferred	No nervous or mental disease
Unemployment (families to support)	10	4			1		1		1		1					2	
Responsibility for care of parents with mental disease	1		1														
Responsibility for care of small children	12	7	2	1	1					1							
Patients separated from their families	13	1	3	1	1	2	1	1		1						2	
Patients with no occupation	5	1		1	1	1			1								
Family has no insight into patient's condition	15	2	1	2	3		2		1	1				1	1		1
Family too busy to give adequate care	5					1			1			1	1		1		
Husband not working	1	1															
Conduct disorder in other members of family	2					1				1							
Home conditions unknown	1													1			
Sex irregularities suspected	1					1											
Total	66	16	7	5	7	6	4	1	4	4	1	1	1	2	2	4	1

Table II.—Social Symptoms and Medical Diagnoses of Patients Not Cared for by the Social Service, Who Reported at a Psychopathic Clinic for Six Consecutive Months in 1920 and 1921

Social Symptoms	Medical Diagnoses										
	Total	Neurasthenia	Psychasthenia	Hysteria	Dementia praecox	Epilepsy	Psychopathic personality	Alcoholism	Syphilis	Paranoid	Diagnosis deferred
Lack of recreation	3			1	1		1				1
Family to support	3	1	1								1
Separation from family	11	3				2	1	2	1		2
Worry about health of other members of family	4	2								1	1
Responsibility for care of small children	1		1								
Improper housing conditions	1										1
Home conditions unknown	2			1							1
Family discord	9	3	2				1	1			2
Family unable to give sufficient supervision	1										1
Total	35	9	4	2	1	2	3	3	1	1	9

country for several years. He had difficulty in speaking English and therefore was graded in school with children much younger than he. He was unhappy there, and his father had allowed him to go to work a few days before he ran away. This was the second time that he had left home. The physician made no diagnosis, but advised the brother to guard the patient in regard to his friends and to keep in touch with the clinic.

The following April, the social worker, in studying a group of clinic records, found that this patient had not reported a second time to the physician. She visited the home and talked with the brother, who said that the patient was neither working nor going to school. He wished him to go to a vocational school as he thought he had a taste for mechanics, but this was impossible because the patient had not passed the required grade in grammar school. The visitor learned from the principal of the boy's school that all the children in the family had a reputation for truancy and that the parents were considered very unreliable; but the teacher who taught the patient said that she had never had any difficulty with him in regard to behavior, and thought his backwardness was due entirely to language difficulty. The visitor then found from the public-school vocational bureau that the patient could be admitted to an evening vocational school if he would agree to work during the day at some job in the trade which the school employment bureau would find for him. In the meantime, however, the boy had again run away and the influence of the clinic was lost.

These facts would seem to indicate that there is a question whether social work is used to as great an extent in psychopathic clinics as its service warrants. In two well-known clinics which have highly organized social-service departments connected with them, the study has shown that many patients whose records point to social conditions that may be deleterious to the patient are not receiving social care. In these two clinics, the general inference is that the social problems of all the patients are investigated and treated by the social service. The writer has heard the following statements made

in both clinics by prominent members of the staff when giving a description of the work to a stranger: "If the patient presents a social problem, the case is referred to the social-service department," or, "The social worker looks after the patient if there is a social problem." The charts and specific cases given here suggest that many of the patients who are faced with difficult social problems do not reach the social service, and that because of this the physician loses information that would be of value to him both in making a diagnosis and in formulating plans for treatment.

The studies show a noticeable difference in the proportion of cases cared for by the social service in the two clinics. At the first clinic, 42 per cent of the patients receive this care and at the second 72 per cent. One reason for this difference is that the first study includes all patients due to return to the clinic and does not include those coming only for an examination which is completed in one day. The latter are brought mostly by social workers from an outside agency. Another important reason for the difference is that the clinic manager at the first clinic was not a trained social worker. At the latter clinic, each social worker who was employed by the social-service department was on duty at one clinic a week, and it was quite noticeable in the investigation that at the clinics in which were the most experienced social workers, fewest uncared for social problems were found. If the social worker found symptoms suggestive of a social problem while taking the history from the patient, she felt responsible for consulting the physician in regard to a social examination. In this way the initiative came not only from the physician, but the social worker shared with him the function of recommending to the social-service department every patient who needed social care. Were this carried out, however, a much larger social staff would be required than is employed at present in either of these clinics, where the social workers are frequently working overtime.

EUGENICS AS A FACTOR IN THE PREVENTION OF MENTAL DISEASE*

HORATIO M. POLLOCK, PH.D.
Statistician, New York State Hospital Commission

THE burden of mental disease is each year becoming heavier. State hospitals for mental disease throughout the country are overcrowded, and the construction of new hospitals does not keep pace with the increase of patients. Fairly complete censuses show that the number of patients with mental disease under treatment in institutions increased from 74,028 in 1890 to 232,680 in 1920. The rate per 100,000 of population increased from 118.2 to 220.1. Careful estimates based on statistics of the New York State Hospital Commission indicate that approximately 1 out of 25 persons becomes insane at some period of life. The economic loss to the United States on account of mental disease, including loss of earnings as well as maintenance of patients, is now over $200,000,000 per year. Although much of the apparent increase in the prevalence of mental disease may be due to causes that do not involve weakened resistance to the stresses of life, the load born by the public is clearly becoming more oppressive.

Associated burdens are those of mental defect, epilepsy, dependency, and delinquency. These combined cause an economic loss even greater than that caused by mental disease.

Taxpayers are groaning under excessive loads and calling in vain for relief, but their cries are faint compared with those of the persons whose relatives are mentally diseased or defective.

As less than one-fourth of those who develop psychoses can be cured by present methods of treatment, we cannot hope for any permanent relief by treating patients in hospitals. The most skillful treatment should of course be given,

* Read before the Section on Eugenics and the State of the Second International Eugenics Congress, New York City, September 26, 1921.

but the problem must be attacked in other ways before any adequate solution can be hoped for.

The fact of inheritance of the neuropathic constitution may be taken for granted. Much evidence has been adduced to prove that such inheritance occurs in accordance with Mendelian laws, but the subject is so complicated that more comprehensive studies must be made before we may consider the matter as settled. The application of skillfully devised measures of intelligence has shown us that there are many grades of intelligence between the idiot and the super-average. The so-called normals represent many types, the extremes of which are as far apart as the moron is from the low-grade normal. Recent studies of temperamental abnormalities have also revealed a wide variety of types and combinations. These abnormalities or marked peculiarities seem to be more or less dissociated from intellectual capacity. Children with super-average intelligence are frequently seclusive and morons often seem to be temperamentally normal. It becomes difficult, therefore, to establish standards of normality and to draw fixed lines between the normal and the neuropathic. This is especially true in studying family histories, when judgment must be based on reports of untrained observers. Mental disease may occur in a person of almost any type of intellectual or temperamental make-up. This fact was clearly demonstrated during the recent World War. Men of strong intellect and of exceptional poise who had withstood the strain of intense warfare for several months at last succumbed when weakened by wounds and deprivation of food and drink. These were extreme cases, but they illustrate the important principle that all men have limitations and may develop a psychosis or expire when their limit is reached. Psychopathic personalities give way to the common stresses of life, while stronger personalities yield only to extraordinary mental strain. It is evident, therefore, that the whole etiology of a case of mental disease must be carefully studied before the related family stock can be safely discredited.

The data we have collected in the New York State Hospital Commission relative to the family history of patients seem to indicate that slightly more than half of our ascer-

tained cases have no discoverable hereditary basis. If more thorough inquiries were made, the proportion of patients with unfavorable family history might be increased, but the significance of the history in relation to the family stock is open to question in many cases.

In our hospitals for some years past, we have studied both the intellectual and temperamental make-up of the first admissions and have tried to apply uniform standards throughout the service. In 1920 it was found that of the ascertained cases 61 per cent were temperamentally normal and 88 per cent were rated as intellectually normal. Only about 7 per cent of the patients were both temperamentally and intellectually abnormal. The proportion of patients with abnormal make-up varied considerably in the different groups of psychoses. For example, in the dementia-praecox group in 1920, 61 per cent were rated as temperamentally abnormal while in the manic-depressive group only 33 per cent were so rated.

The absence of marked abnormalities in individuals prior to the onset of the psychosis cannot be construed as conclusive evidence that there are no hereditary defects in the make-up, neither can the development of the psychosis be taken as proof of a defective constitution. All the facts in connection with the onset of the mental disorder and previous reactions must be brought together before the constitutional make-up of the patient can be positively determined.

Psychiatrists have recently emphasized the connection between bodily states and behavior and the importance of the sexual and endocrine organs in relation to the psychoses. What part of the disorders related to these organs is due to hereditary and what part to environmental factors have yet to be determined.

Notwithstanding these and many other complications, there is abundant evidence that mental disorders occur much more frequently in some family stocks than in others, and that prolonged inbreeding of degenerate stocks is productive of most disastrous results.

With the limited knowledge at hand, what is to be done to lessen the burdens imposed on society by the prevalence of mental disease?

Three lines of action are suggested:

1. Environmental stresses may be lessened and natural resistance strengthened.
2. Procreation of defective stock may be checked.
3. Procreation of normal stock may be increased.

The methods now in use to prevent physical disease may be applied to a considerable extent in preventing mental disease. They include the dissemination of knowledge of hygiene and sanitation, prompt treatment of incipient diseases, segregation of those suffering from contagious diseases, and immunization of those liable to exposure to pathogenic germs. Another line of attack consists in safeguarding the public from injurious food and artificial beverages and from polluted air and water. The abolition of the liquor traffic and the movement to check the spread of syphilis are examples of effective work along these lines.

Economic and social stresses should be lightened for those unable to withstand them. It is far easier to relieve an overburdened man by taking part of his load than to wait until he is exhausted and then carry him together with his burden. Physicians, parents, and teachers should be alert to detect signs of mental disorder and apply the proper remedy before complete breakdown occurs.

Mental clinics and social workers are of large service in giving treatment in incipient cases. Many a case of mental disease is averted by adjusting the environment to the individual and by giving him a clear understanding of his mental difficulties and the best methods of meeting them. Wide extension of mental-clinic work is clearly indicated.

The new science of mental hygiene is teaching us that individuals with unfavorable heredity may do much to overcome their constitutional tendencies and to preserve their mental health. It is of the highest importance, therefore, that mental hygiene be taught and practiced in the public schools along with physical hygiene.

A decade ago sterilization of defectives was widely advocated and laws making provision for it were passed in several states. These measures have availed little because they have not been supported by active public sentiment. Judging from the present outlook, we cannot hope that sterilization will soon be an effective means of preventing mental disease.

Segregation of the mentally defective and epileptic is the prevailing method of limiting procreation among these classes. Its eugenic value is beyond question, but the enormous cost limits its application. As a rule the mental defectives and epileptics cared for in institutions are of low grade. These, if left at liberty, would multiply far less than those of higher grade. Much is to be hoped from the colony plan of segregating mental defectives, as colonies care for high-grade defectives and under wise management become self-supporting and may be increased without limit.

A new departure has been made by the state of New York in establishing a separate institution for defective delinquents at Napanoch. This troublesome group has been a serious problem in the jails and prisons of the state, and heretofore there has been no satisfactory way of dealing with them. Their segregation should have large eugenic significance.

Segregation of the insane is fairly complete, but as only about one-fourth of the first admissions are under thirty years of age on admission, its value in preventing procreation in this group is not as great as would appear when only the number of patients under treatment is considered. Overcrowding and the expense of maintenance cause patients to be promptly released on improvement of their mental condition, regardless of the eugenic factors involved.

Something can be done to lessen reproduction among the unfit by enlightened public sentiment and by better marriage laws. Marriage of persons with marked intellectual or temperamental abnormalities should be entirely prohibited.

To prevent the marriage of normal persons with those carrying a neuropathic taint more knowledge of family stocks must be made available. At the present time genealogical records of the average family are woefully meager and comparatively few are available for public inspection. If we are to improve the race by better marriages, genealogical or eugenic bureaus must be established in cities and villages. Data concerning family stocks should show the defects as well as the excellencies and achievements of the individuals recorded and be available to interested parties.

Love is proverbially blind, but few normal persons would

be rash enough knowingly to join fortunes with a neuropathic or degenerate family stock. Unfortunately very little thought is now given to the eugenic significance of marriage and few signs warn impetuous youth of the danger ahead.

Eugenic bureaus, by collecting data concerning family histories and by emphasizing the importance of family stock, would naturally promote marriages among persons of good stock and thereby increase procreation of a desirable kind. The increase of good stock would raise the general level of the race, even if there were no decrease of poor stock, but we may safely assume that more definite knowledge would gradually lessen reproduction among the unfit.

The elimination of mental defects and diseases is after all principally a matter of education. We must learn by careful research what should be done and what should not be done and then disseminate the information so that it will be shared by every household. Action will slowly follow knowledge, but ultimately a more perfect race will be evolved.

MENTAL HYGIENE PROBLEMS OF MAL-ADJUSTED CHILDREN AS SEEN IN A PUBLIC CLINIC*

A. L. JACOBY, M.D.
Director, Psychopathic Clinic, Recorder's Court, Detroit

IN the Wayne County Psychopathic Clinic at Detroit, which is an out-patient service of the State Psychopathic Hospital at the University of Michigan, most of the children seen have been delinquent in one way or another, and are sent to the clinic for examination by the Juvenile Division of the Probate Court of Wayne County. From this it may be seen that the maladjustment present is often of a rather severe degree and of long standing.

As we go deeply into the study of individual cases, we frequently find that the treatment indicated to bring about a satisfactory solution of the problem at hand does not need to be applied to the patient himself so much as it does to those with whom he lives. It has likewise been often observed by judges of juvenile courts that disciplinary measures are very frequently indicated for the parents, rather than for the accused juvenile. We dislike very much to recommend a commitment to an institution for any child, unless there is a positive indication for it. The types of cases in which positive indications are most frequently seen are, first, those in which the child is so great a menace to the community that it seems advisable to confine him for the protection of the community; and second, those which are in need of the treatment afforded at a particular institution.

It sometimes becomes necessary, however, to institutionalize a child, not because he is in need of any particular treatment that the institution can give him, but rather to remove him from the pernicious influence of his home. An

*Read before the Mental Hygiene Section of the National Conference of Social Work, Milwaukee, June 27, 1921. The author wishes to express his appreciation of the kindness of Dr. Nellie L. Perkins and the Wayne County Psychopathic Clinic in extending to him the use of their case histories.

example of this type of case was a fifteen-year-old Jewish boy who was arrested for the third time, charged with larceny, the complaint having been filed by his brother-in-law. The family history showed little of importance so far as nervous or mental disorder is concerned. His mother died of Bright's disease when he was seven years of age. She was a midwife and was described as a very bright woman. His father is a carpenter and cabinet maker and an industrious worker. He remarried shortly after his first wife's death. The patient has one sister and one brother in the army. There is also one half-brother and one half-sister at home. While his mother was living, our patient was given a weekly allowance and, as he put it, "he had to mind." With the entrance into the family of the stepmother, this allowance was stopped. It was then noted that he began stealing, first at home and later outside the home. His stealing led to lying about his thefts. This condition of affairs had been going on for years until more recently he had become truant from home.

An examination of the boy showed him to have a mental age of thirteen years, with an intelligence quotient of 90, on the Stanford scale—hardly a rating that would classify him as feebleminded. In the emotional field, there was present a little indifference, with some irritability. He had exhibited temperamental outbursts upon occasion when crossed. His attitude toward his stealing was careless, to say the least. He said that he could stop stealing if he wished, but what was the use? In school work, he had reached the ninth grade and had shown a very marked interest in things mechanical.

Investigation of the home showed a six-room house literally filled with roomers, so that the family of five was crowded into three rooms, and even in these rooms the roomers interfered. His stepmother nagged him constantly and showed openly her favor to her own two children. When this condition of affairs became intolerable, he ran away from home and went to his married sister, of whom he was very fond. Here he found that she and her husband frequently quarreled, and in their disagreements he always united with her against her husband. This led to a great bitterness on the part of his brother-in-law toward our patient, and they frequently came to blows. Probation in this case had failed, as we might

have expected, in the only two environments available to him. His temperamental peculiarities made him a difficult case in any home, but we had the feeling that in an understanding and stimulating home environment he would grow into a very useful and straight-living citizen, probably an electrician or mechanic. He was committed to an institution, not so much because he needed to be segregated or because we believed he needed the treatment that the institution afforded, but rather because the institution would be better for him than the other environments available.

An example of the type of case in which treatment appears indicated for the parents rather than for the patient is that of a ten-year-old girl referred to the clinic by the Children's Aid Society because she was reported to be of an extremely jealous disposition with a violent temper. She was described as being extremely profane, and at times brutal toward the other children, and was said to have lied and stolen. Her mother described her as uncontrollable, and expressed a fear that the child would kill the other children. On one occasion she is said to have struck her sister with a clothes hanger so that the sister was unconscious for a period of three hours. She frequently told her mother that she wished her mother would die, but she showed great fondness for her father. She is said to have cursed aloud in church, to the great embarrassment of the rest of the family. This sort of conduct is said to have characterized her for a period of about two years, or since the death of a brother. At the time of her brother's death, there was much illness in the family, and the patient was taken by a cousin for a period of two months. It was upon the return home from the cousin's house that this conduct was noted, and it was attributed by the mother to the fact that the cousin had spoiled her. At any rate, the child always wanted to return to the cousin, but this was not permitted by the parents.

The family history in this case indicates that the father and one paternal uncle are heavily alcoholic; the mother, also a patient of the clinic, is definitely psychotic, falling in that class of cases which we have been in the habit of labeling paranoid. There are two other living children. The patient has had the usual diseases of childhood, but has always

enjoyed average health. She reached the A Third grade in school, was able to do the school work well, and had caused little trouble in school.

Upon examination she was noted as a frail, timid little girl, with easy recourse to tears. She cried as she told of her efforts to please her mother and of her failures in this regard. She admitted stealing money from the home to buy food because she was hungry. Upon psychometric examination she registered nine years, five months, with an intelligence quotient of 100. During a portion of her examination, the mother was in the room, and the mother's extremely profane description of the patient's conduct caused the child to appear very much ashamed. This child was placed in a boarding home, where she is reported to be getting along well. In this case we have a timid, unstable, very sensitive child, living in a home with an indulgent, weak, alcoholic father and an irritable, paranoid mother. If active therapeutic measures are indicated in the case at all, they are more needed for the parents than for the child.

This case may serve to illustrate another point: The taint in the stock from which this girl comes is such that we need not be surprised if she develops actual nervous or mental disease long after she has left the influence of her home. We are now dealing, in her case, with a problem of maladjustment largely environmental, but due mainly to abnormality in the parents. Who can say that we will not, at some future time, have to deal with a psychosis in this patient for which the predisposing cause, at least, is the same as the cause of the environmental factors at work now?

In public clinics, where large numbers of the poor and unsuccessful are seen, there comes to our attention a rather definite group of cases in whom the situation appears hopeless. I believe that every public clinic has a rather fixed number of these individuals, the percentage differing, perhaps, for different localities, but always present. I refer to the type of case in which the stock from which the patient comes is extremely badly tainted with pathological factors and where the patient carries evidences in his own make-up of his poor heredity to such an extent as to make it appear that he

cannot make the necessary adjustment to get along without supervision.

One of this type appears, I believe, in the case of a boy fourteen years of age, a charge of the juvenile court because he had stolen a valuable gold pin set with diamonds. He tried to dispose of it at a jeweler's, but the jeweler became suspicious and accused him of stealing it. He then broke it up and tried at another jeweler's to dispose of it as junk, but was again refused. He had been stealing since he was a tiny boy, but his parents had paid little attention to it until the last five years, when they felt it had become more serious. He had taken a number of pieces of jewelry and as much as $68.00 in money at one time.

His family history indicates that his mother is a very unstable, neurotic woman who has had a nervous breakdown in which she was depressed and suicidal. Although I do not know the exact nature of her trouble, I feel that it was probably an attack of manic-depressive psychosis, depressed phase. The father is a very ignorant man who is extremely indifferent toward his children. He takes no interest whatever in the home and spends all his spare time at lodges. One brother of the patient is subnormal and is in a special class at school. Another brother is well now, but has formerly had convulsions of one sort or another. The maternal grandmother died insane of general paresis. The maternal grandfather was highly nervous and subject to periodic headaches, the exact nature of which we do not know. One maternal uncle was heavily alcoholic. The maternal great-grandfather was also heavily alcoholic. Two of the maternal great-aunts were religious fanatics, thought by many to be insane. On the paternal side the grandmother died insane in the state hospital; the grandfather was a drinker and was well known in the community for his violent temper. An uncle was heavily alcoholic and a cousin was considered an incorrigible thief. The patient was a bed-wetter and a masturbator until shortly before we saw him. He had had pneumonia twice and some of the diseases of childhood. He had attended school regularly.

Upon examination he showed a very narrow, peculiarly

shaped head, skin of very fine texture, and disproportionately long extremities. His physical appearance suggested somewhat a disturbance of function of the glands of internal secretion. The neurological examination failed to reveal any definite evidences of organic nervous disease. The psychometric examination gave him a mental age of ten years, ten months, with an intelligence quotient of 76. In the emotional field he showed a striking indifference. There was no evidence present of any affection for his parents and no interest in the probable outcome of his case. He talked freely of his stealing, but without spontaneity, made no promises as to the future, and showed no shame concerning the past. While I am inclined to believe that, in general, we perhaps attach too great importance to a poor heredity when we seek out the causes of maladjustment, still in this case, presenting at least thirteen instances of abnormality in the antecedents, I feel that the heredity factors must be regarded as of considerable importance. This seems to me to be especially true in view of the patient's peculiar physical structure, his subnormality in intelligence, and his total lack of any spontaneity. Certainly the background upon which one has to build in this type of case is of very poor quality, and we must not feel surprised or disappointed to find that effort expended on such material may bear little fruit. We cannot make thoroughbreds out of scrub stock amongst the lower animals; neither can we expect to do so in the human race. A proper recognition of this fact in a public psychopathic clinic is very necessary. There is so much to be done, the cases of maladjustment are so numerous, that the community may best be served by expending our efforts, which are extremely limited, upon those cases where there appears some degree of hopefulness, as a result of our efforts. For the others I would suggest a disposition by the most economical social means possible.

This seems to me to be a distinctly selfish age in which we live. Whether our selfishness is explained by the war or by after-war conditions I do not feel able to say, but we find evidences of it in our public clinics, to which more and more people bring their problems. It is not infrequently observed

that children are brought to the clinic, not so much for the benefit which the parents feel might be given the child, but with the expectation that the clinics will, by some means or other, relieve the family of its responsibility toward the child. I feel sure that many children are not wanted in the home. The furious rate at which we live, with its keen commercial competition, tends to make the advent of children into the home an expense that parents too frequently deplore. Under such conditions, the child is apt to be neglected and is hastened to the actual maladjustment for which he comes to the clinic.

I recall the case of a thirteen-year-old girl whose father owned a small delicatessen store. In their eagerness to get ahead financially, the mother spent most of her time with the father in the store, which was kept open twelve to fourteen hours each day. As business increased, the child was also recruited as a clerk. There was no home life. The family's entire life was spent in the store or in the one room behind the store, which served as the home. Small amounts of money began to be missed from the cash register, and it was discovered that the child was taking money to buy small luxuries for herself. The parents brought this girl to the clinic. Their attitude showed that they really wished the clinic might have the girl committed to an institution, so that they might be relieved of the responsibility and be insured against the danger of her further stealing from them.

I feel that we must strive to get away from our cliff-dwelling habit and restore, so far as possible, the family group and the home as an institution. Parents must inject into their children, from the earliest age, a sense of social values. This must be done, not only by teaching in the school and in the home, but by the actual living examples of the parents. We, as workers interested in social-welfare problems, should instill, so far as it is within our power, a proper sense of social values in the cases of those with whom we come in contact, and we must not tolerate the habit on the part of the family of "passing the buck" to the social agency in regard to the entire care of one of its members. We must require of them more in the way of their duty to their children than we have been requiring in the past.

SPEECH DEFECTS IN SCHOOL CHILDREN*

SMILEY BLANTON, M.D.

Associate Professor of Speech Hygiene, University of Wisconsin; Attending Specialist, United States Public Health Service, Hospital No. 37, Waukesha, Wis.

THE value of easy, smooth, intelligent speech has not been appreciated in the curricula of our public schools. Much more stress is laid upon oral reading than upon the possession by the child of good speech. And even where the child has a definite defect of speech so serious that he cannot get along in the social world, teachers and even parents often place the school training in geography or grammar above the necessity of acquiring good speech. This attitude on the part of teachers and parents may be accounted for as due to a lack of realization of the nature of speech and its social value. Only recently a teacher refused to allow a boy with a bad stutter to have leave during part of one class period in English literature that he might come to our clinic for treatment; she said that the class work was the most important thing.

If we think of man as an adaptive mechanism, constantly adapting to new and untried situations, then it is clear that speech is one of the chief and most important means that man has of so adapting himself. Speech is a short cut to action. A deaf child who has not been taught speech affords a pathetic and graphic illustration of the importance of this function. Instead of saying: "Mama, I want to go downtown," it has to run to the door, point, and make inarticulate sounds, the tones of which express certain emotions, or it may make more elaborate gestures, going out to the automobile, opening the door, etc.

By speech, too, we can bring to the mind of the listener distant scenes, describing actions or individuals, and so speech may be said to be a distance ceptor.

Speech, with its modulations, symbolic words, and accom-

* Read before the Mental Hygiene Section of the National Conference of Social Work, Milwaukee, June 29, 1921.

panying gestures, is developed in response to certain needs in the life of the child. The development of speech is bound up with the development of the intelligence. Some psychologists have claimed that thought is merely subvocal or silent speech.

In arguing for the necessity of good speech, I do not speak from the standpoint of the elocutionist who seeks technical perfection. I mean merely speech that is free from obvious defects and that can be understood. The social value of such speech cannot be overestimated. Defects prevent individuals from taking their place among their fellows. They are likely to develop a feeling of inferiority, anxiety states that bring them into the province of the psychiatrist and the psychiatric social worker. What chance has a boy or girl of average intelligence, with no influence back of them, to succeed socially or economically if they have a stutter or cannot speak so that they can be understood? Their powers of adaptability have been cut off at the very source.

And, even if we eliminate the economic side and consider the matter from the viewpoint of mental hygiene, these defects would merit our consideration. Science has studied the most insignificant reactions of the human body, but has almost totally neglected the disorders of speech. As a result, a body of charlatans, quacks, and well-meaning, but uninformed persons treat these speech disorders. Part of the distress from which the individual with a disorder of speech suffers is due to the lack of understanding that he meets. After he has suffered several operations and been treated in a few stuttering schools, his despondency and depression are easily understood.

The prevalence of disorders of speech is astonishing, so much so that the uninitiated are likely to be doubtful of assertions concerning them. In a survey of approximately 5,000 children of Madison, Wisconsin, in the grades below the high school, 5.69 per cent were found to be suffering from disorders of speech. Of this number .72 per cent were stutterers.

J. E. W. Wallin, Director of the Psycho-Educational Clinic in St. Louis, found that out of 89,057 pupils 2.8 per cent had some disorders of speech. Wallin found that .7 per cent stuttered. Conradi investigated six cities and found .87 per cent of stutterers. The average percentage of stuttering

from many surveys in this country and abroad is approximately .9 per cent.

Miss Pauline Camp, in a personal survey of 9,387 children in the grades below the high school in Grand Rapids, Michigan, found that 2.64 per cent stuttered and that a total of 13 per cent showed speech disorders.

It is usually claimed that most of the children who have disorders of speech overcome them. In order to determine the number who reach the age of eighteen retaining their defect, a personal examination was made of 1,400 members of the freshman class at the University of Wisconsin. On this basis the 2,240 members of the whole freshman class were computed to have 409 speech defects. One hundred and twenty-five stuttered; 33 had a foreign accent acquired outside of America; 29 had oral inactivity; 103 could not pronounce the letter s or z; 18 spoke abnormally rapidly or slowly; and 101 had severe vocal defects, such as weak, chronically hoarse, husky, or nasal voices. In all, 409, or 18.13 per cent, were found to be unable to meet the necessities of English speech. I should like to add that the examiners were most lenient in their judgment. It will be seen from these figures that speech disorders are not outgrown in any great degree, and in the case of stutterers, even though the speech defect disappears, there remains the defect in the emotions—an undue sensitiveness, a feeling of inferiority which interferes with the progress of the individual. Many of these stuttering cases had a very slight defect, but they felt that they had severe difficulty and maintained that it was a great handicap for them because they never knew when they were going to have trouble with a word, and meeting people was a constant strain on them.

Delayed Speech

A not inconsiderable number of children come to kindergarten and first grade who have not developed speech. Most of these cases are due to a lack of mental development, and each case should have a careful examination to determine its mental level. A certain number of these cases are due to a faulty attitude on the part of the parents. As has been said,

speech develops in response to certain needs. In some neurotic children, unless the need for speech is very definite, speech does not develop. A boy of five years with no speech was the only child in a family in which there were, in addition to the parents, the grandparents on both sides. These six adults made every effort in the world to satisfy the child's slightest wish. In addition to this, he had also a nurse, whose sole business it was to look after his wants. This child gave every appearance of good intelligence and, after a few weeks of good routine in his own home, spoke freely and with very few defects, a fact that indicated the use of speech subvocally.

Oral Inactivity

The second type of speech disorder we have called oral inactivity. It is characterized by a lack of coördination of the active elements of articulation—the tongue, soft palate, lips, throat, and jaw. There are several types of this, both from the descriptive viewpoint and from the viewpoint of causative factors. It has been our experience that where the tongue lies more or less inactive on the floor of the mouth, there is likely to be a history of endocrine disorder in the family, of food deficiency of certain of the vitamine-bearing foods, and of temperaments more or less erratic, timid, and egoistic.

This is nicely demonstrated in a boy of nine, who has such peculiar speech that it is not always recognized as English. It is very difficult to understand, due to the omission of nearly all final consonant sounds and to the interchangeable use of several of them. In addition to this there is a distortion of certain sounds, the result of which is unenglish. This boy's family shows a history of hyperthyroidism; his food peculiarities are very marked, his diet consisting almost entirely of carbohydrates; and the behavior of both the patient and his family gives evidence of a markedly neurotic disposition. This child, when concentrated on in class-room phonetics and reading, broke down into a severe stutter. This we find to be a constant occurrence with this type of disorder.

The over-emotional element is nicely shown in one case in which, on the slightest excitement, there is crying, neurotic vomiting, and sleeplessness. This boy is fifteen years of age,

and his speech is hardly understandable because of a severe oral inactivity, to which has been added, in the fifth grade, a mild stutter.

In those cases where the inactivity is decidedly in the jaw and lips, the trouble is usually purely emotional, and the temperament excessively timid and inclined to be seclusive and introspective.

Letter Substitutions

The third type of disorder is called letter substitution. This includes lisping, which is usually the substitution of *th* and *sh* for *s*, and lalling, which is the substitution of *l* and *w* for the consonant *r*. As these two groups did not include all the noticed substitutions, the one name was given to the entire group, and it includes such previously unnoted substitutions as *t* for *k*, *ig* for *ing*, *d* for *t*, etc.

An interesting thing in connection with this group is the fact that these changes do not remain constant in all cases. For instance, one child substitutes *k* for *t* and in some positions *t* for *k*. Only rarely is the case found in which the letter sound or combination of letter sounds cannot be made under some conditions. Only in a case where a single letter was uniformly mismade would we be justified in even suspecting the fault to lie in the organic structure, and only then if similar sounds, using related muscle groups, were mismade in a like manner. To illustrate: the tongue position for the letter *s* and the letter *z* are the same; a large number of those who mismake the letter *s* make the letter *z* with ease, although the only added element is vocalization. What, then, would be gained by the changing of the organic structure of the mouth by the application of braces or of operative procedure? The difficulty obviously lies (1) in the intelligence necessary for, or the opportunity for, the learning of the position of the letters in the words, or (2) in the emotional inability to adjust to the necessity of accurate speech. In a case of letter substitution reared in a family where such substitution was constantly present, the lack of opportunity for learning might be postulated. But it must be borne in mind that these people are constantly coming in contact with people who have all the letter sounds, and that infantile speech is a sure tie with infancy, and, finally, that this symptom is rarely present in

an individual who does not show other indications of infantile fixations of the emotional life.

Stuttering

Stuttering, with which we include stammering, is the most serious of the group of functional speech disorders. It is present in about 1 per cent of the school population. This disorder should be considered as symptomatic only. The underlying trouble may be neurotic, psychoneurotic, or some as yet obscure trouble in the control or coördination of the elaborate mechanism of speech.

We feel that there is some lack of balance in the motor control of all these cases, but the most important thing is the temperamental lack of ability to make the necessary emotional adjustments to life and the use of speech as a symbol of all the human relationships. In other words, the fear from which the stutterer suffers is not a fear of speech, but a fear of meeting situations in life, and speech is the accepted field for such a symbolization because poor speech closes the necessary avenue of approach to life and offers an excuse for failure that would otherwise be lacking.

A case that illustrates this is that of a young man of good intelligence and excellent personality who gives the following history: He was the youngest of a family of six children. On the death of the father, the oldest brother came to the head of the family and was constantly pointed out by the mother for his successes and perfections. In this family the standard for scholarship, for personal relationships, for order, and for social success was very high. The patient was somewhat different from the others in temperament and ability, but was held to the same standards. He was late in talking; in his fifth year, when he began to talk, he also began to stutter badly. This stutter was his all-powerful excuse for his failure in family standing. Away from the family, and the comparison with its other members, he has only a little trouble with his speech until some difficult situation arises, and then the condition becomes bad again. In this way he has lived the life of a refined nomad, wandering from situation to situation and from school to school.

A second case is that of a child of two and a half who was

forced into a premature conspicuousness by an over-fond and indiscreet parent. This child began to stutter, and *at the same time* began to demand that he be permitted to sleep with the mother and to refuse all but a more or less infantile diet, and preferred staying alone to playing with the children with whom it had been his custom to play.

It is maintained by some workers in the field that the mental condition and the emotional conditions are the result of, and not the cause of, stuttering. It would be true, of course, that the difficulty would carry with it a large amount of unpleasant emotional tone, but it is a significant fact that the families of these people show the same temperaments, the same social disabilities, to a somewhat greater extent than do the families of non-handicapped children.

When you consider that 200,000 children of school age stutter or stammer in this country and that, including delayed speech, oral inactivity, letter substitution, and the most severe vocal defects, there are probably half a million suffering from defects of speech, something of the enormity of the lost opportunity and wasted material becomes apparent.

That this enormous problem can be handled successfully in a way that considers its functional, especially its emotional, element has been demonstrated in such cities as Grand Rapids, Michigan, where the approach to the cases is made almost wholly with a view to adjusting the individual to his environment. Teachers and social workers who undertake this work should know more than the anatomy and physiology of the articulative organs. They should be familiar with the mechanism of hysteria, of the faulty balance and the emotionalism of the neurotic, of the earliest beginnings of aboulia, of negativism, of introversion, as well as the lesser train of timidities and insecurities and over-attachments.

Speech correction offers one of the best methods of approach to mental hygiene in the schools. As yet our boards of education are too hard pressed for money and time to take over the problem as one of atypical behavior. They do see, more and more, the pressing problem of faulty speech, and the organizations for the correction of this defect may well include the incidental care of other children in whom behavior of other sorts is not average.

The teachers who do the speech-corrective work should have, besides a knowledge of the physiology of the organs of speech, a knowledge of speech drill and a thorough training in behavioristic psychology and the psychology of the emotions. They should know the part speech plays in the development of the emotions, and how poorly controlled emotions may develop wrong types of speech. Moreover, they must be trained to understand some of the mental mechanisms that control behavior, such as feelings of inferiority and its compensations in over-boldness and over-talkativeness, and be able to analyze and treat these conditions. Teachers so trained can do mental-hygiene work of the highest type, for they deal with children who have great possibilities.

EXTRA-INSTITUTIONAL CARE OF MENTAL DEFECTIVES*

EARL W. FULLER, M.D.
Senior Assistant Physician, Rome State School, Rome, New York

THE New York State Commission for Mental Defectives and the New York State Hospital Commission have, within the last two years, coöperated in the establishment of a number of out-patient clinics.[1] It is desired to present here the experience of the last year or so in four of these clinics held monthly in four different cities. As there are present in each clinic a physician from one of the state hospitals and his field worker, as well as the examiner in mental defect and the psychometric tester, children showing signs of mental disease are referred to the state-hospital physician. The problems presented by these children will not, therefore, be included in this discussion.

Several days before a clinic is held, notices of the session are published in all the local newspapers. These notices inform the public of the purpose, location, and the time of the clinic and invite any persons interested in an abnormal, unusual, backward, or nervous child to avail themselves of the services of the clinic. Notices of this character are also sent to the local agencies interested in children, such as the child-placing agencies, county agents for the State Charities Aid Association, detention homes, school nurses, etc.

Before the first clinic is held in any locality, the physicians of the city and vicinity are either written to or interviewed, the purpose of the clinic is explained to them, and their coöperation is invited. After the clinic is organized, these physicians are reminded of the clinic as frequently as possible. No medicines or prescriptions are given to any patients interviewed and the patients who need either medical or

* Read before the American Association for the Study of the Feebleminded, Boston, May 28, 1921.

1 *Clinics for Mental Defectives in the State of New York.* By William C. Sandy. MENTAL HYGIENE, Vol. 4, pp. 597-604, July, 1920.

surgical care are advised to return to their family physician. This physician is written to by the examiner, if the patient's parent or guardian so requests.

A complete record of each examination is kept and those referring patients are requested to report to the clinic the progress or lack of progress made by the patient; very frequently patients are asked to return for further observation.

All cases coming to the clinic are expected to be accompanied by some one able to give the examiner a complete personal and family history. Whenever the needed history is not secured, as much of an examination as possible is made, but no diagnosis is attempted until the proper history is received and, when necessary, the patient is reëxamined.

Patients are examined in as nearly the order of their arrival as possible. While the examiner is securing the patient's history, the patient is being given the Terman revision of the Binet test, so that by the time the examiner is ready for the patient, the test report is usually ready for him. The examination includes as complete a physical examination as possible as well as a study of the patient's mental activities, knowledge, etc.

In only a very small percentage of cases does the physical examination fail to show several minor, correctable physical defects; not infrequently major physical troubles, such as tuberculosis and heart lesions, are found. When the provisional diagnosis has been determined, the person referring the case is again interviewed and given the examiner's opinion of the patient and such advice as the examiner feels would be of benefit in improving the patient's mental, physical, or social condition. Institutional care is recommended only as a last resort and, in spite of the fact that a number of patients have been presented to the clinic for diagnosis with institutional commitment in view, application for commitment has seldom been made. Where commitment has been recommended, there have usually been reasons external to the patient, such as unusually poor family conditions; that the patient might have the proper supervision and care and thereby a chance to improve, institutional or colony life has been considered.

The first clinic of which I wish to speak is located in a pro-

gressive city of about 30,000 inhabitants. Clinics are held in this city two days in each month, the first day in the city hospital and the second day in the Catholic hospital. In each hospital a waiting room and two examination rooms are provided. The first session of the section for defectives of this clinic was held in August, 1919, in connection with a mental clinic that had been established by the State Hospital Commission several years before.

Owing to the fact that neither of these local hospitals has any connection with a free dispensary or other clinics, there is no suggestion of charity connected with an interview in the mental clinic and, as a result, patients have been drawn from all classes of society, ranging all the way from the child of a weathy state official to representatives of the pauper and criminal classes. Patients of the last groups, of course, were presented for examination by social agencies.

For some reason, which I believe to be indifference, the medical men of this community have shown very little interest in the clinic's activities and, as a result, the children examined do not receive as much medical and surgical attention as their physical condition seems to call for. The special classes of this city are also not of the best type and, in consequence, directions for special or vocational training have had to be made very simple. Otherwise, placing the patient in the special class means little more than segregating him from the normal children during school hours.

Since the organization of this clinic, 173 cases have been examined in the section dealing with mental defectives. Of these, 77 have been referred by the school authorities, 4 by the detention home, 5 by the workers of the County Red Cross, 36 by relatives or guardians, 19 by orphan asylums, 8 by physicians, 9 by the county agent for the State Charities Aid Association, and 5 by the Public Health nurse.

Forty of these cases received the provisional diagnosis of moron, 36 that of imbecile, 1 of idiot, 5 of epileptic with no apparent mental defect, 1 of epileptic moron, 4 of epileptic imbecile, 2 of mongolian idiot, 1 of hydrocephalic imbecile, 2 of paralytic moron, and 1 of paralytic imbecile; 44 were diagnosed as backward as a result of physical causes, 7 as

border line, 10 as having normal mentality, 1 as suffering from goitre, 2 from maladjustment, and 1 from chorea.

Of this group, 49 have been reinterviewed or reported on. Only 45 of this entire group had no marked physical defects. Of the remaining 128, 53 had enlarged tonsils and adenoids, 43 teeth in poor condition, 42 poor circulation, 7 enlarged cervical glands, 12 phimosis, 11 coryza, 5 pharyngitis, 1 spinal curvature, 28 Hutchinson's teeth, 1 umbilical hernia, 5 strabismus, 10 enlarged thyroid gland, 12 bronchitis, 9 defective sight, 3 otitis media, 1 corneal ulcer, 1 cataracts on both eyes, and 1 ulcerative stomatitis; 5 were undersized, 19 poorly developed and nourished, 5 anæmic, and 1 deaf.

The agencies referring these patients received recommendations for their treatment, and the following list will give some idea as to the most frequent recommendations made. Wassermann examinations were recommended in 49 cases, the removal of tonsils and adenoids in 42 cases; 39 needed dental work done, 14 glandular treatment, 8 improvement in their diet, 14 circumcision, 16 eye examinations, and 4 were in need of a great deal more fresh air. Vocational training was recommended for 31, and 28 needed the benefits of special-class work; 10 were advised to leave school and do farm or garden work; 9 needed an improved environment, and 2 better discipline; only 8 were recommended for institutional care.

The person who referred the patient for examination was always asked to state the special problem in the patient's case. Sixty-eight were referred for examination because they were retarded in school, 1 was a truant, 2 were underdeveloped, 1 was undersized, 8 "nervous," 7 had convulsions, 5 were slow or could not learn quickly, 2 had bad tempers, 10 were believed to be subnormal or defective, 1 was "different," 1 "not right," 1 "not normal," 1 "peculiar," 1 a masturbator, 1 inattentive, 1 paralyzed, 1 indecent, 5 did not talk, 1 would not work, 1 "could not do things," 2 were thieves, 1 "not safe to leave at home," 1 unteachable, 2 were disobedient, 4 were brought to the clinic to have their mentality investigated with the idea of adoption, 3 were "lazy," 1 with a bad family history was presented with the idea of

determining his chances for a normal future, 2 were dull, 1 "not to be trusted," 2 were irritable, 1 had "peculiar spells," 2 were "ugly," 1 was "childish," 1 was "infantile," 1 could not learn to read, 1 had a poor memory, 1 was "stupid," 2 repeated grades, 5 had speech defect, 1 was "disturbed," 1 was dependent, 1 "made faces," 1 was "sullen," 1 over-active, 1 was presented by a mother who was curious to know the mentality of her child, and 1, a prostitute, was presented by a county agent, who wished to know "what could be done with the patient."

The second clinic was established simultaneously with a mental clinic organized by the State Hospital Commission. This clinic was first opened in the one hospital of a city of about 20,000. Owing to the inconvenient location of this hospital, the clinic was soon removed to the more conveniently located Red Cross Building. As there is no free dispensary or other clinic in connection with this location, patients are drawn from all stations in life as in the first clinic. This clinic was organized and ran for several months without newspaper publicity and, as a result, I am led to believe that we have gained more and better coöperation from the local physicians than in the other clinics. While perhaps there has not been a higher percentage of patients referred to this clinic by physicians, more medical men visit the clinic and show an interest in its activities.

After a session or so of this clinic, the local school authorities requested the examiner to spend one day of each month in the public schools. Permission for this having been received from the State Department of Education, the examiner has spent one day a month examining only school children presented by the supervisor of the special classes. Each of these children comes to the examination with a complete family and personal history secured by the school authorities. The personal history contains a detailed school and social history and is secured by the special-class teacher and the school nurse. Very frequently parents of these patients come to the clinics at the suggestion of the teachers, and recommendations for further care of their children are made in detail to them.

This clinic was opened in March 1920, and since then 129

cases have been interviewed. Fifty-four of these were presented by the school authorities, 49 by the local chapter of the Red Cross, 4 by physicians, 7 by the Associated Charities, 9 by relatives, and the others by the county agent for the State Charities Aid Association, the county Child Welfare board, the Public Health nurse, and the superintendent of the poor.

The problems in these cases were very similar to those mentioned in the previous clinic. Sixty-six of those examined were retarded in school, 1 was unteachable, 2 had convulsions, 1 was "dull," 1 did not grow, 1 was "wasteful," 3 had speech defect, 2 were of doubtful mentality, 1 did not progress properly, 1 was "irresponsible," 3 paralytic, 4 delinquent, 2 "lacked self-control," 5 were "peculiar," 1 was a truant, 2 were "nervous," 1 was "lazy," 1 "unusual," 2 had "peculiar spells," 1 was a thief, 1 was "slow," 1 did not talk, 1 was "suggestible," 2 were immoral, 2 were incorrigible, 1 was over-active, 1 was presented to the clinic for examination of mentality with the idea of adoption, 1 did not sleep at night, but slept in the daytime, 1 "had no ambition," 1 was "dirty," and 1 was "lawless."

The third clinic was added to a long-established state-hospital clinic in a city of about 100,000. The clinic is located in the city free dispensary, where free clinics of every known variety are already established and complete records of every case are kept. This arrangement is ideal for one type of case only, and that is the type that would visit a free dispensary for any other medical reason. It is quite unusual for an individual from any other social grade than the one just mentioned to come to the clinic for examination and these individuals rarely return after the first interview if they suspect that the dispensary keeps a record of the examination. For the type of patient that will accept charitable medical attention, the location of this clinic could not be improved, for patients in need of medical or surgical care or special laboratory examination are reported to the dispensary registrar, who sees to it that the treatment or examination recommended is provided.

One hundred and twenty-six cases have been referred to

this clinic—37 by the schools, 5 by physicians, 32 by relatives, 20 by orphan asylums, 10 by the county agent for dependent children, 1 by the Humane Society, 4 by the children's court; several of the other local agencies interested in children have sent in an occasional child for diagnosis.

Of this group, 58 were examined because they were believed to be backward, 2 because they were thieves, 1 because he did not grow, 1 because he did not like school, 1 because he was "rebellious," and 1 man because he could do just one thing in the mill where he had worked for years; 1 would not work, 2 had bad tempers, 1 was incorrigible, 1 was a masturbator, 6 were immoral, 1 was "easily led," 1 was untidy, 1 ran away from home. Many other reasons similar to those already stated were given as reasons for the examination of other cases. The usual kinds of defect were found in these cases. One unusual one, not spoken of before, was a case of gigantism, which one of the charitable organizations presented because the patient was without a home and looked defective.

The fourth clinic has been established such a short time and so few cases have been examined that very little can be said about it except that it is located in the office of the city board of health and that there are several other free clinics in this same office.

This clinic was located rather hurriedly and the local physicians were not properly informed of the reasons for establishing it and the service it was hoped it would render to the community. After the clinic had been opened, it was found that, in the eyes of the local physicians, it was apparently a partisan of one group in a local medical disagreement, and it has been necessary to use a great deal of time and energy in the effort to get the physicians of this city to understand that the clinic is not interested in local medical differences, that no record of patients is kept at the clinic, and that the person referring the patient is the only one who receives a report of the examination.

Twenty-two cases have been examined in this clinic. These were presented by the usual agencies and the usual type of problems and conditions were encountered.

In brief, there have been 449 cases examined at the four

mental clinics. Of these, 168 were presented by the school authorities, 75 by relatives, 29 by physicians, and 59 by workers from local chapters of the Red Cross. The others were presented by various children's agencies.

Of the entire number presented, 22 were found to be normal, 88 backward because of environmental or physical causes; 32 were diagnosed as border line, 84 as morons, 56 as imbeciles, 9 as idiots, and 19 as epileptics; 7 were believed to be maladjustments.

From the experience thus outlined, it appears that, when a clinic is to be established, some capable person who understands thoroughly the function of a mental clinic and who is able to give the local children's agencies and others a correct view of the problems of the mental defective and of the aims of the mental clinic should spend some time informing the groups interested of the plans of the contemplated clinic and its personnel.

If the clinic is to have but a one-day session, it should be located in some neutral place where there is no suggestion of charity and no free dispensary or other clinics, and where no local records of the patients examined are kept. If a session of more than the one day is to be held, at least one of these days should be spent in a neutral place such as has just been described.

From the number of patients examined and from the number of different agencies presenting patients, as well as from the small number of patients examined that have become state charges, it is evident that the mental clinic can be of great aid in dealing with the problem of the mental defective.

ABNORMAL PSYCHOLOGY

BARRINGTON GATES

I AM, they say, a darkling pool
Where huge and cunning lurks a fool
Childish and monstrous, untaught of time;
Still wallowing in primeval slime.
All powerful he with fang and claw
To fill his red capacious maw,
And not a thousand thousand years
Have eased his belly, stilled his fears,
But ever with dim, consuming fire
Swirl the slow eddies of desire
About his sprawling limbs, and lull
The torments of his brutish skull.
He is most merciless, lone and proud,
There in the scaly darkness bow'd,
And sleeps, and eats, and lusts, and cries,
And never lives, and never dies.

Nay, but above this stagnant night
The lovely highways of the light
Sweep on with winds and dawning flowers
And stoop to touch its midnight hours.
If I am he, I'm also one
With all that's brave beneath the sun,
With lovers' singing, and tall great trees,
And the white glory of morning seas.
What of this silence, so there stay
Child's laughter to the end of day?
And what of dark, if on the hill
Eve is a burning opal still?

Reprinted from the *London Mercury*, June, 1921.

ABSTRACTS

THE PROBLEM OF A PSYCHOPATHIC HOSPITAL CONNECTED WITH A REFORMATORY INSTITUTION. By Edith R. Spaulding, M.D. *Medical Record,* 99:815-21, May 14, 1921.

Ten years ago, when the state of Massachusetts made an appropriation for an institution for defective delinquents, it was generally supposed that all those persons who had been misfits in the various institutions to which they had been sent—mental hospitals, schools for the feebleminded, and reformatories—would be found to be defective intellectually as well as emotionally, and hence would be fit subjects for permanent segregation. A closer study of these individuals, however, revealed the fact that many of them ranked high in psychometric tests, and some doubts arose as to the legality of committing such persons, since, with all their irresponsibility and lack of emotional control, they were neither insane nor intellectually defective. Certain examiners agreed, therefore, that the term "defective delinquent," as used in diagnosis, should include only individuals who are intellectually defective as well as delinquent. This is, in Dr. Spaulding's opinion, the only accurate use of the term. Should it be applied to every case with a personality defect of some kind, it would include practically the entire reformatory population. Again, it is a misnomer and leads to misunderstanding and a confusion in diagnosis when it is applied to that heterogeneous group of individuals that constitute one of the most difficult of institution problems. Such individuals should be called preferably psychopathic delinquents, and they are the group with which a psychopathic hospital connected with a reformatory should concern itself. The present discussion is based upon an experience of over a year and a half with a group of this kind at the Psychopathic Hospital of the New York State Reformatory for Women at Bedford Hills.

The cases with which such a hospital has to deal include "borderline cases of mental disease, such as manic-depressive cases showing much instability, but not in an acute phase; early cases of schizophrenia and cases of cerebrospinal syphilis that are not committable; psychoneurotic and neurotic conditions; cases of epilepsy; and the many that may be grouped under the general terms of constitutional inferior or psychopathic personality and who are also subject to psychotic episodes. Since such a hospital must necessarily be, in so unchartered a field, a research laboratory, there should be included,

with the cases showing obvious nervous and mental symptoms, all problematic cases with marked conduct irregularities. Many cases will remain in the hospital but a short time and can be returned to the institution proper after a period of observation, but the majority of cases will be the very difficult ones that, because of their emotional instability and unadaptable traits of personality, find it impossible to maintain their equilibrium for any length of time in the midst of the main institutional group."

The removal of these unruly individuals from its midst is a great help to the main institution, but the problem of managing them as a single family group is a difficult one for the psychopathic hospital. For eight months the attempt was made to manage the hospital at Bedford Hills like any psychopathic hospital unconnected with a reformatory. No punishment was used except an occasional locking of doors, and every effort was made to build up the patients physically and to help them to a more constructive attitude toward life. The result was constant unrest, friction, and dissatisfaction. To give an idea of the difficulties encountered, Dr. Spaulding describes in some detail a day at the hospital, with its series of emotional explosions beginning at six o'clock in the morning and ending only with bedtime.

Whether or not the treatment of such a group as this as mental cases might be successful under certain conditions, Dr. Spaulding does not attempt to decide. She simply shows what factors entered in to complicate the situation at Bedford Hills. In the first place, in any such group selected from the population of a disciplinary institution, there will always be certain individuals who will take advantage of the fact that no punishment or deprivation of privileges will follow an infringement of rules. They will instigate as much trouble as possible to test the system and will crow over the inmates of neighboring cottages who are under a stricter discipline. This is certain to have a disastrous effect upon the morale of the surrounding cottages.

Another difficulty is the attitude of suspicion and resentment on the part of the patients due to the fact that they are being treated as mental cases. Their knowledge that they are regarded as "nuts" by the other inmates of the institution seems to result in a determination to live up to their reputation, perhaps in an effort to compensate by recklessness and abandon for their half-conscious sense of inferiority to their more stable companions. They have, too, all the layman's usual dread of a hospital for mental disease, and the fact that it is often necessary to transfer cases to such a hospital deepens their distrust of the psychopathic hospital and makes it very difficult to maintain an atmosphere in which fear and suspicion do not predominate.

The presence of the workers in the hospital is another complicating factor. Although chosen from among the more stable of the reformatory girls, these workers are none too stable at best, and the effort to hold them to a higher standard of behavior than that required of the patients inevitably results in trouble.

As to the question whether discipline in any form is necessary in such an institution, Dr. Spaulding has this to say:

"We gave the experiment a trial and were not successful without it [discipline]. The friction was constant and the hospital morale sunk to its lowest level. . . .

"The question of what discipline is and how it may be administered is a subject on which volumes might be written. It is only possible to say here that we have found that a definite set of rules, correlated with a deprivation of privileges, administered always from a therapeutic point of view, even though by a layman, was very helpful in influencing the whole atmosphere of the hospital. There are undoubtedly cases in which exceptions must be made, but it is much easier to make exceptions in disciplinary measures in a few cases than it is to control the emotional reactions that occur in the psychopathic patients in general as a result of the license that follows when the disciplinary measures that are needed by the majority are suddenly withdrawn."

The article closes with the following general conclusions:

"Those who have dealt with a group such as I have described in the midst of a larger and, in itself, a difficult group of emotional, unstable persons, either in a hospital for the insane or in a reformatory institution, have realized for years the need of an institution where such patients could be segregated in order to promote the stability of the larger group and also to give to the few the amount of outlet and individual attention necessary. That there is such a need is obvious. But that it can be met by placing such individuals together, at least in a single group, is not yet proved. The problem, which will vary always with the individual members of the group at a given time, may not be solved for many years to come.

"The chief function of such a hospital connected with a reformatory institution should be to differentiate types. In the initial examination made of each woman on entrance to the institution, any cases needing immediate transfer to a mental hospital should be recognized before they join the general population of the institution and should be sent to the appropriate institutions without going through the psychopathic hospital. While this number is small, being in our experience but 2 in 100, it is of much importance. Cases doubtful in nature should be sent to the hospital for a period of observation. The

majority of cases, however, that are recognized as being markedly unstable at entrance belong to the hospital throughout their entire residence in the reformatory. It is by removing the more unstable ones from the general population that the institution proper is given a chance to maintain a higher standard in morale and the psychopathic individuals themselves are given the best chance to maintain their highest level. The hospital should also be equipped to take for study and observation any patient who presents a special behavior problem in the institution proper.

"It is in the management and treatment of the resulting heterogeneous group that the real difficulty of the problem lies, because a fairly stable background is necessary as a foundation for reëducational procedure. The most important factor, then, consists in finding a social level into which they can best fit, so that as much effort as possible can be expended on their individual reconstruction. This reconstruction of personality should consist, generally speaking, in efforts to socialize their egotism. It should include any therapeutic measures that will benefit the physical condition of each woman, the stimulation of healthy interests and activities, and the unearthing of mental conflicts that have kept the personality from developing beyond infantile levels; and find ways to counteract feelings of inferiority, to sublimate primitive desires, and build up the weakest points in each personality, whatever they may be."

A Psychological Study of Some Mental Defects in the Normal Dull Adolescent. By L. Pierce Clark, M.D. *Medical Record*, 99:991-6, June 11, 1921.

For some years mental tests have revealed the existence, both in schools and in industrial life, of a large group of individuals who suffer from slight mental retardation, though they rank too high to be classed even among the border-line cases of feeblemindedness. Study of this group has thus far been mainly confined to the quantitative aspect of their mental defect. Practically no attempt has been made "to determine and classify the exact degree of qualitative mental disorder from which these individuals suffer." Yet in view of the fact that many delinquents and antisocial individuals are recruited from this group of so-called normal-dull persons, it is highly important that an effort be made to understand the psychology of their emotional life and "determine to what extent the state is remediable or adaptable to the end of good mental health."

In spite of the hopes of endocrinologists that glandular treatment may hold out the possibility of a cure for the milder forms of mental retardation, it is Dr. Clark's opinion that the best hope for the nor-

mal-dull person, as for the feebleminded, lies in "the old, well-proven procedure of education and better adaptation of the individual to his life purposes at the level of his innate capacity." This involves a consideration of character traits as well as of intellectual equipment. "The fault of many normal-dull persons is not simple mental deficiency. Indeed, the detection of this fault is a relatively simple task compared with an analysis of the psychopathic traits." Dr. Clark is inclined to believe that mental retardation plays less part than is generally supposed in the inducement or the encouragement of conduct disorders in normal-dull persons, and that their education should include character and conduct training instead of being directed solely toward the improvement of their intellectual standing. Psychologists, whose work in testing this normal-dull group Dr. Clark reviews briefly, have called attention to the fact that many of these individuals are very valuable members of society, better fitted to perform certain kinds of work than people of a superior intellectual endowment, who are likely to become discontented and restless at monotonous tasks.

"From an analysis of the whole subject, it would seem that the 'normal-dull person' is not feebleminded, but simply 'dull.' Being 'normal' as far as the emotional part of his nature is concerned, he will get on fairly well and may become a valuable member of society, provided he is in the right milieu. Lack of work and bad company may make a derelict of him and, sooner or later, land him in the workhouse or in jail. What the normal-dull person needs is some training which will enable him to make himself useful in one of the many occupations in which a certain mental inferiority, far from being a handicap, is in reality an advantage."

The simple mental testing that reveals the intellectual deficiency does not, however, as a general rule indicate the character defects or the emotional faults that may also be present. "In some respects," Dr. Clark states, "these conduct disorders, when present, are not dissimilar to those seen in the moron, although the pattern plan of the antisocial acts is obviously cleverer and more elaborate. The main difference in such acts of the normal-dull person and those of the psychopathic inferior is the presence in the former of a more enduring affect regarding the specific delinquency, and the field of delinquency does not spread over so large a field of activity. Then, too, the acts are more closely connected with the genetic instinct. In many it would seem as though the main first fault were not a disciplinary one, but the boy's unsuccessful repression of his too lively sexual fancy and desire. The general temperament of the normal-dull person is on the whole one of tender-mindedness rather than the callous indifference of the so-called psychopathic delinquent. In the

composite, one would say the antisocial act of the normal-dull person is analogous to the heedless carelessness of the moron combined with a sexual tinge of the socially unstable plus the narrow transgressions of the petty offenses of the psychopathic delinquent."

Two case histories are given as illustrations, both cases of adolescent boys in whom a slight mental retardation was associated with more or less serious character defects. Their significance lies in the fact that they undoubtedly represent a very numerous class among adolescents. From several years of study of such cases, Dr. Clark draws the following conclusions: (1) that "there are early evidences of primary faults in the instinctive life of these youths" and that their character defects are almost invariably exhibited in the ascendants; (2) that "the character faults would seem to be on the whole independent of the quantitative estimation of mental defect, although the two are frequently correlated and a greater number of delinquents would probably be found in this group than in the normal group;" and (3) that "there is a great need for schools, both private and public, to recognize the qualitative faults in such individuals and establish an education adapted to overcoming the same," quite independent of the effort to correct the mental retardation.

"A general pedagogical and training approach to this complex problem of the dull-normal person is the immediate practical question, both in the field of his concrete-mindedness and the training out of the character faults which are likely to occur far more frequently in this group than in the general run of abnormal adolescents. To prevent or train the dull-normal adolescent we have need of the very best in pedagogic psychology. . . . Every child is more or less interested equally in adventure and fairy tales. Their colorful and vivid appeal is for all. Why is it not possible so to ingraft the simple, natural, and appealing principles of symbolic thinking of childhood into ways of thinking upon school studies? Thus we may carry the concrete principles of work of the grammar school into the high school and college curriculum. In point of fact, that is what is actually done with these dull-normal, concrete-minded pupils when they are sent as educational problems to the cleverly arranged preparatory school. First of all, the teaching personnel must be capable of diffusing its own vivid human interest in the subject to the slow-footed, plodding student—a sort of benevolent contagion of thinking is imparted. Then, too, the teacher should constantly add the vividness of concrete application to the symbolic thinking as he advances his subject. Teachers in all walks of life are too apt to consider illustrations as digressions and time-killers, and use them sparingly. If they but realized it, the intellectual things which they

wish to teach their auditors should have a warp of concrete presentation with a woof of symbolic thinking instead of vice versa; the dull-normal student would then stand a better show of getting on."

THE SOCIAL WORKER'S APPROACH TO THE FAMILY OF THE SYPHILITIC. By Maida H. Solomon. *Hospital Social Service*, 3:442-52, June, 1921.

In the main, the social worker in syphilis need be no different from any good social worker. She should possess mental poise, sympathy, tact, and judgment. She must be interested in the medical as well as the social side of the problem. Syphilis is a contagious disease and should not be looked upon as a punishment for sin. The moralist point of view should be avoided. The social worker must enter the lives of her patient as a human being, treating each family according to its individual needs.

In summarizing, the author states that the social worker's duties are:

1. To instruct the family how to avoid infection, emphasizing the seriousness of the situation, but avoiding over-frightening the family.
2. To find out whether any other members of the family are infected, by arranging for family examination.
3. To aid the patient in disclosing the fact of syphilis in such a way that the mate acquires the right attitude.
4. To utilize the mate as an ally in making the patient take continuous treatment.
5. To arrange for treatment of syphilitic relatives, and to see that it is carried through by endeavoring to develop a coöperative spirit, especially in the difficult problems of seemingly well relatives and syphilitic children.
6. To secure family examination for early symptom-free syphilitics and late syphilitics, recognizing that this is more difficult to bring about than the examination of the family of contagious patients.

Some of the more pressing situations one must be prepared to deal with are:

1. Readjustment of the mental life of the family.
2. Readjustment of the physical life of the family.
3. Economic difficulties in the families of late syphilitics, including such situations as a working wife, diminished income, charitable aids, etc.

One cannot offer any method of dealing with these situations. It is important for the worker to analyze the effect of her methods in each case, to plan new attacks, and to synthesize her successes and failures into a better technique.

SOME PRACTICAL POINTS IN THE ORGANIZATION OF TREATMENT OF SYPHILIS IN A STATE HOSPITAL. By Aaron J. Rosanoff, M.D. *State Hospital Quarterly*, 6:319-24, May, 1921.

It is now recognized on all sides that it is incumbent upon every state hospital to provide efficient organization of personnel, equipment, and procedure for the treatment of syphilis.

In an effort to develop such an organization in the Kings Park (New York) State Hospital, some practical points arose for consideration. Not a little correspondence, discussion, investigation, and experimentation were necessary before a definite policy and technique were adopted. Some of the questions that came up are discussed in the present paper.

The cases of syphilis that are met with among state-hospital admissions may be classified as follows:

Systemic syphilis { latent / active

Neurosyphilis { mesoblastic ("cerebral syphilis") / parenchymatous ("general paralysis")

As regards latent systemic syphilis, the main point is that it can be brought to light only by means of routine Wassermann tests practiced in all cases admitted to the hospital. There is, as a rule, no etiological connection between the syphilis and the mental disorder in such cases. These patients should, however, receive antisyphilitic treatment on general principles, and, in event of parole, provision should be made for the continuance of such treatment extramurally.

Cases of active systemic syphilis, it need hardly be said, are in even more urgent need of prompt, vigorous, and persevering treatment, although in such cases, too, there is no etiological connection between the syphilis and the mental disorder.

As to neurosyphilis, the most significant of the recently discovered facts with regard to cases of mesoblastic invasion are (1) that such invasion occurs in a high percentage of cases early in the course of the infection—namely, in the primary and secondary stages; and (2) that it may exist without giving rise to nervous or mental symptoms, or may manifest itself by slight, vague, or transient symptoms, so that there is danger of its being overlooked.

The practical bearing of these facts is that all cases of systemic syphilis, latent or active, should be, at some time in the course of their treatment, investigated by lumbar puncture, in order to dispose of the question of possible invasion of the central nervous system; and that no case of syphilis can be discharged as cured until not only the clinical and blood-serum findings have been rendered persistently negative, but also the spinal-fluid findings.

Finally, in regard to neurosyphilis caused by parenchymatous invasion—i. e., general paralysis—the question is asked: Considering all past experience, which is discouraging, should such cases receive antisyphilitic treatment at all? In the author's opinion the answer should be in the affirmative.

There has been much discussion as to the choice between arsphenamine and neo-arsphenamine. The question presents for consideration three distinct elements: (1) trypanocidal power, (2) toxicity, and (3) convenience in administration.

Experimental investigations recently made by Schamberg and his associates in the Dermatological Research Laboratories of Philadelphia have shown that arsphenamine is 1¾ times more curative than neo-arsphenamine, but is at the same time 2½ times more toxic. Accordingly, it is possible to choose for neo-arsphenamine such dosage as to secure greater curative and less toxic effect than by means of arsphenamine.

The paper includes an outline of the technique of administering neo-arsphenamine.

THE MENTAL CLINIC AND THE COMMUNITY. By Everett S. Elwood. *State Hospital Quarterly*, 6:381-84, May, 1921.

The establishment of out-patient work at the hospitals, including the clinics and the after-care work—or, as it is sometimes called, social service—has accomplished much in bringing about a closer relation between the state hospitals and their individual communities, and a better appreciation by the public of the true nature of the hospitals for mental disease and the splendid work they are doing. The establishment of after-care work at the Manhattan State Hospital was the first definite move in this direction, and this was followed rapidly by the establishment of free clinics for mental cases in New York City. This work has grown so that the state hospitals now have a total of 23 social workers and 41 clinics. As the people become more and more acquainted with the work of the state hospitals, and as they are given opportunity of seeing mild types of mental disease get on very well in their own communities, their prejudice and superstition against all forms of insanity gradually disappear.

The work of the mental clinics is greatly appreciated by most of the communities in which they function. During the past year, requests have been received from several cities for the establishment of clinics under the guidance of state-hospital physicians. Such a clinic was recently organized at Glens Falls at the request of the health officer. The dean of a prominent medical college recently wrote and asked what he could do to facilitate the organization of this good

work in his city. Public-school departments are particularly anxious to receive the help that clinics afford in the diagnosis and treatment of border-line cases developing among school children.

The future is very encouraging so far as the work of the mental clinics is concerned. The time is probably not far distant when each state hospital will have to have an extra physician on its staff to attend to this field work, for the assignments of duties within the institutions are in most instances sufficient to demand the whole time and energy of the medical staff.

Such a service to the community should have the adequate support, not only of the state hospitals themselves and the various social forces in the different communities, but also of the appropriating authorities of the state. It is not only a saving in dollars and cents to keep a patient sufficiently balanced to forego the necessity of hospital commitment, but it is a great saving in the welfare and happiness of the individual patient and his family.

AN ANALYSIS OF SUICIDAL ATTEMPTS. By Lawson G. Lowrey, M.D. *The Journal of Nervous and Mental Disease,* 52:475-481, December, 1920.

In view of the lack of accurate statistics on the causes of attempts at suicide and the mental states of those who make them, the Boston Psychopathic Hospital undertook an investigation of the cases of attempted suicide among its admissions for a period of about six months, obtaining sufficient data on 46 cases to permit of an analysis, including a diagnosis of the patient's mental condition, the reason or reasons for the attempt, and the method selected. In this paper Dr. Lowrey, chief medical officer of the hospital, gives a brief history of each of these 46 cases and summarizes the results.

The diagnoses were as follows: dementia praecox 16, manic-depressive 9, psychopathic personality 5, psychoneurosis 3, paranoid condition 2, alcoholic 2, epileptic 3, undiagnosed psychosis 2, depression with paralysis agitans 1, cerebro-spinal syphilis 1, senile psychosis with depression 1, arteriosclerotic psychosis 1. The high proportion of dementia-praecox cases as compared with the manic-depressive was unexpected, but may be partly explained by the fact that the hospital receives about 3 times as many of the former as of the latter. "It is evident, however," Dr. Lowrey states, "that we must guard against suicidal attempts in dementia praecox more than we had thought necessary."

Depression, though the most frequent immediate cause, was responsible in only about one-third of the cases (14). In 7, the attempt was directed by hallucinations or delusions; in 6, it was an effort to

escape imaginary persecutions; in 5, it was the result of discouragement over physical disease; in another 5, a method of gaining sympathy and attention; 3 patients made the attempt in a confused period following an epileptic seizure; 1 was trying to escape from a love tangle and 1 from insanity with which she believed herself to be threatened. The remaining 4 would give no explanation.

The methods used were: cutting in 17 cases, gas in 13, poison in 8, drowning in 6, hanging in 4, jumping from a window in 3, swallowing foreign bodies in 2, strangulation in 1, shooting in 1, and setting fire to the clothing in 1. The total of attempted methods comes to more than 46, as several of the patients had tried more than one method. The predominance of cutting and gas are probably due to the fact that sharp instruments and gas are the tools most easily obtainable.

Touching upon the much discussed question whether a normal person ever attempts suicide, Dr. Lowrey is of the opinion that there are many conceivable situations in which a normal person might choose death as the lesser of two evils, but that the burden of proof in any individual case rests with those who claim normality for the suicide. All of the persons in the series under discussion were in an abnormal mental condition at the time of the attempt.

BOOK REVIEWS

PSYCHOPATHOLOGY. By Edward J. Kempf, M.D. St. Louis: C. V. Mosby Company, 1920. 762 p.

Kempf's book divides itself readily into a theoretical and a clinical part, and it is the reviewer's hope that the stupendous task of doing justice in a brief review to this truly epoch-making book may be lightened by adhering to this division.

In doing so one may unhesitatingly say that in the presentation of his clinical materials Kempf has rendered a lasting and a quite unprecedented service to psychiatry; this notwithstanding the fact that the interpretation of this wonderful collection of data—clinical and other—will probably remain for a long time a matter of individual psychiatric preference. This is as it should be, and Kempf himself will undoubtedly be the first one to welcome constructive criticism on the question of interpreting his material.

The reviewer has no settled opinion on the subject, but finds himself, after a perusal of these interesting and very fully recorded case histories, with a greater respect than ever before for those thoroughly substantial guiding lines that above all else characterize American psychiatry and that are embraced in the dictum so frequently enunciated by Meyer—namely, that we are to seek in the patient and in his difficulties the explanation of his problem as well as the key to its solution. Kempf must be rated as one of the most distinguished of Meyer's students, and it is not to be suspected that he has deviated from this principle very much.

As for the theoretical side of the book, it is not necessary to restate here fully Kempf's formulations. In the present volume, he has at times condemned, at other times elaborated, the theories pretty fully presented in his monograph on *The Autonomic Functions and the Personality*.[1] Briefly stated, his theory is that it is the autonomic apparatus that dominates the personality, and that psychopathologic manifestations indicate the manner in which the ego manages the demands made upon it by cravings of the autonomic segments. The central point in the theory, as originally stated by Kempf, is "that in the higher organisms an affective sensorimotor system (autonomic) exists which created and uses the cerebrospinal or projicient sensorimotor system as a means to keep in contact with the environment in order that the autonomic apparatus may fulfill its biological career."

[1] For a review of this by Dr. L. Pierce Clark, see MENTAL HYGIENE, Vol. 4, 251-52, January, 1920.

It seems to the reviewer that in the present volume by far the most interesting and valuable discussion is that relating to the question of the conditioning influence of life experiences upon the working of the personality, a phase of Kempf's contribution concerning which definite opinion may be formed quite apart from what one's attitude might be towards the more central of Kempf's theories.

Highly interesting also is his handling of the problem of consciousness and his classificatory scheme of psychopathologic reactions.

In closing this unpardonably fragmentary statement of Kempf's contribution, the reviewer desires to express the conviction that no psychiatrist can afford to remain unfamiliar with the contributions of this writer.

BERNARD GLUECK.

New York School of Social Work.

THE UNCONSCIOUS: The Fundamentals of Human Personality, Normal and Abnormal. By Morton Prince, M.D., LL.D. Second edition, revised. New York: The Macmillan Company, 1921. 654 p.

To the first edition of this work have been added Lecture XVII (*The Structure and Dynamic Elements of Human Personality*) and Lectures XVIII-XX (*The Psychogenesis of Multiple Personality—The Case of B. C. A*).

This work of Dr. Prince comprises a series of lectures designed as a course in psychology for medical students, to precede the courses in psychiatry and neurology. Such a course is highly desirable, and it is about time that the medical schools should appreciate its necessity, based upon the fact that there can be no adequate dealing with the sick individual as patient that does not take into consideration his personality make-up and arrange therapeutic devices accordingly.

As to the matter of the lectures: In the first place, the term unconscious seems to the reviewer to be used in a rather confusing, not to say unfortunate, sense, despite the author's efforts to define it clearly. He uses the term subconscious generically to include what he terms the co-conscious—or "actual subconscious ideas which do not enter the content of conscious awareness"—and the unconscious, or "neural dispositions and processes" (p. x). Co-conscious phenomena are those long ago made familiar by the work of Janet, by the author in his excellent case reports, and by many others, and include the familiar phenomena of dissociated mental states, multiple personality, etc.

What is included in his concept of the unconscious, however, is somewhat more difficult to understand. He uses the term "to characterize that which is devoid of the attributes of consciousness" (p. 249). While the reviewer agrees with the author that it smacks of quibbling to

object to the term "unconscious ideas" as involving a contradiction in terms, "as we know well enough that the adjective is used in the sense of unawareness" (p. 250, footnote), still to speak of the unconscious in one place as "that which is devoid of the attributes of consciousness" (p. 249) and in another as "neural dispositions and processes" leaves the reader quite confused, especially as the author also uses the term "physiological memory" (p. 229) and so seems definitely to confuse two disciplines, physiology and psychology. This confusion of physiology and psychology is still more apparent when, in speaking of the education of a decerebrate dog, he says: "New dispositions and new connections may be acquired within the lower centers without the intervention of the integrating influence of the cortex or *conscious intelligence*" (p. 238).[1] Does he mean here the cortex or the conscious intelligence, or does he mean that cortex and conscious intelligence are interchangeable terms? If the latter, then the implication is that the cortex is a single organ with the function intelligence. Surely an indefensible position.

The interchange of physiological and psychological terms is a common source of confusion. There is no objection to analogies and figures of speech, but the two should be kept separate in thought. The unconscious as neural process has no place in psychology; it is plainly a problem for physiology.

The book, as a whole, impresses the reviewer as a development and elaboration in detail of such work as that of Janet and McDougall. As the work of Janet dealt for the most part with those phenomena which Prince calls co-conscious, so it seems to the reviewer that this is the material which is principally elaborated throughout the book. It is a long way from co-conscious to neural process, and this region is quite inadequately handled. There is no suggestion as to how the psychological simples of early infancy play their part in the complex elaborations of the adult. This is the region of the Freudian unconscious, repressions, and fixations, and although Dr. Prince is not a Freudian, he might have given these views more consideration than he has. To ignore them almost altogether is to leave a great hiatus in the account of the personality.

The lectures, as a whole, are well devised to serve the purpose for which they were intended. They make a book that is readable, illuminating, full of information gleaned from clinical experience, and withal a credit to American psychology. Would that every medical student could have the privilege of so excellent a course!

WILLIAM A. WHITE.

St. Elizabeths Hospital.

[1] Italics not in original.

A General Introduction to Psychoanalysis. By Sigmund Freud. New York: Boni & Liveright, 1920. 406 p.

Were one interested here primarily in the presentation of Freud's views and doctrines, this review could be made very brief, as indeed the review of any of Freud's original writings can afford to be. Freud's teachings have achieved such an astounding degree of popularity and enjoy such wide discussion that it is but necessary to note the appearance of a new book on Freudian psychology to assure for it wide attention.

The reviewer's task in connection with publications in this field has come to be chiefly a task of searching for something new in these contributions and, unfortunately, of pointing out that for which claim is made, for novelty often enough proves to be more novel than dependable. It is for this, if for no other reason, that the serious student of psychology ought to feel grateful to Professor Freud for having again restated his original views.

The book ought to serve as a dependable standard by which to measure the validity of the various outpourings on Freudian psychology that have achieved such singular popularity, especially in this country. Such a comparison will bring into bold relief first of all Freud's refreshing conservatism and moderation as compared with the unbridled enthusiasms of some of the exponents of his teachings. While the latter do not hesitate to assure us with noisy conviction that psychoanalysis is the cure for all human ills and evils, Freud, after over a quarter of a century of diligent research, and after a very rich clinical experience, is still inclined to restrict its usefulness to the functional nervous disorders.

The translation has been executed in the main carefully, although in spots it is rather crude and occasionally somewhat misleading, as, for instance, when the word "delusion" is translated into "obsession." The book comprises the material of twenty-eight lecturers intended to cover the main outlines of the Freudian psychology. It should not only be of interest to those who wish to make a first acquaintance with Freud's contributions, but through its clear and dependable restatement of fundamental principles, it should prove very valuable even to the specialist in this field.

Bernard Glueck.

New York School of Social Work.

Sleepwalking and Moon Walking; A Medico-literary Study. By Dr. J. Sadger, of Vienna. Translated by Louise Brink. New York and Washington: Nervous and Mental Disease Publishing Company, 1920. (Monograph No. 31.) 140 p.

In this work the author takes up the problem of noctambulism and

the relation of light, especially the light of the moon, to the phenomenon. He begins with the analysis of a case which he treated for nine months on account of severe hysterical symptoms. After this period of treatment, the patient volunteered to write an autobiography, and the author rather naïvely assumes that there is very little of his influence to be seen in her explanations and interpretations. As is to be expected from the author, the sleepwalking is explained as the expression of definite infantile desires of a sexual nature. The influence of the moon was largely due to the sexual associations of this heavenly body.

The author makes quite unwarranted statements about the psychology of childhood. According to him, "children, when they see the full moon, or their attention is called to it, begin to snigger. Every one familiar with the child psyche knows that such giggling is based on sexual meaning, because the little ones usually think of the nates."

For the author the sleepwalker climbs up on the roofs as a fulfillment of a childish wish to climb up into the very moon. In the rest of the clinical section the author reviews briefly a few other cases; the reader meets a number of gratuitous assumptions, but, at the same time, sees signs of grace in the statement: "It must be admitted, to be sure, that we have to confine ourselves to mere conjectures." This admission contrasts, however, with the "doubtless" of the preceding sentence (p. 42).

In the second part numerous examples of literary work in which sleepwalking plays a part are subjected to analysis or rather to sexual interpretation. The author's facility of hypothesis is here also illustrated; where data are wanting, they are merely assumed. Thus the death of the mother of the heroine of the novel *Maria* occurs at some unknown date—"We do not discover when she died nor how old the little one was when she lost her natural protectress" (p. 73). On the following page, we find: "Yet I am of the opinion that she had already in her seventh year begun to play this rôle—in which year the death of her mother would be placed."

The author takes up the sleepwalking of Lady Macbeth, and explains to us, not only why she was so ambitious, but also why she carried a candle in her sleepwalking. The marital relations of the noble pair are also revealed. The fact that she remarks, "To bed," and other minor indications, show unmistakable sexual implications. The fact that she repeats a word several times is infantile. Lady Macbeth is dominated by a father-complex, and in the sleepwalking she partly identifies herself with her father. Her ambition reveals the fact that she was a bed-wetter in childhood. It is true that Holinshed in his *Chronicles* gives no data to confirm this. To the

reader the bed-wetting of Lady Macbeth is presented as a fact beyond dispute.

It is not necessary to go into the detailed relations of her father and mother, which are presented with equal assurance and naïveté. To the translator this is "a profoundly suggestive study of the psychic background of Shakespeare's creative work as illustrated in the sleepwalking of Lady Macbeth." To the reviewer it is a typical example of the dogmatic presentation of a mixture of fact and hypothesis which does more than anything else to discredit many recent advances in psychopathology.

C. Macfie Campbell.

Boston Psychopathic Hospital.

Ten Sex Talks to Boys: Ten Years and Older. By Dr. Irving David Steinhardt. With an Introduction by Ernest Thompson Seton, Chief Scout, Boy Scouts of America. Philadelphia and London: J. B. Lippincott Company. 187 p.

Ten Sex Talks to Girls: Fourteen Years and Older. By Dr. Irving Davis Steinhardt. With an Introduction by Rachelle S. Yarros, M.D., Chairman of the Social Hygiene Committee of the American Federation of Women's Clubs. Philadelphia and London: J. B. Lippincott Company. 193 p.

Thousands of boys throughout the country, enrolled in that excellent organization, the Boy Scouts of America, look to their Chief Scout with great respect and admiration. The parents of these same boys look to him in confidence for advice on many troublesome problems, and one of the chief of these, no doubt, is the problem of sex instruction. A book on this subject, therefore, that has an endorsement, through an Introduction, by Mr. Seton becomes an important book regardless of its own merits. The same may be said of any book of "sex talks" to girls that has an Introduction by the Chairman of the Social Hygiene Committee of the American Federation of Women's Clubs. To the chairman of this committee mothers in all parts of the country naturally turn with confidence for advice in such puzzling matters as sex instruction for their daughters.

A reviewer, likewise, turns to these books with confidence. A book is not likely to be recommended to the Boy Scouts of America, it is assumed, by the Chief Scout, or to the mothers of the American Federation of Women's Clubs by the chairman of an important committee, unless it be carefully written and free from the misstatements and gross exaggerations that have done incalculable harm in other books of the kind. But—one can scarcely believe it—here is the same vicious specter of the past generation that must now be paraded be-

fore the Boy Scouts of America and the daughters of the American Federation of Women's Clubs:

"I have seen boys as young as twelve years, or slightly more, and upwards, in insane asylums from excesses of this kind [masturbation] and the cure of the mental condition, in these cases, is almost hopeless. . . . " "The forms of insanity most often produced by excessive masturbation and excessive sexual indulgence are melancholia and acute mania, excessive masturbators being usually afflicted with melancholia, a most distressing form of insanity . . . about as near a living death as anything can be." "Masturbation, if indulged in to excess, will cause a breakdown of the nervous system, and cause you to end your days in a madhouse, or send you to an early grave."

If masturbation causes insanity, the cases are so rare as to be negligible; the fear of such a possibility, however, engendered by statements such as those quoted in the sensitive, repressed child, robbing him of confidence, courage, and self-respect, all fundamental elements in a healthy-minded, efficient person, and filling him with a sense of sin and guilt, the psychiatrist knows only too well. The very thing which the writer of these books and others would seem to wish to prevent—nervous and mental disease; or, after all, is it their main interest?—is the very thing which they tend to create by their false teaching. The patient who is insane as a result of masturbation exists in the minds of those who write these books; the patients who are distraught and made ill by this teaching are, however, a grave reality.

It is unfortunate that the author has allowed himself to hand on to the present generation this misinformation of his own generation and thus spoil what in many other respects are excellent books that would be helpful to parents, teachers, and others who appreciate the need for the teaching of sex hygiene to children and adolescents, but who are hampered in undertaking it by personal resistances and ignorance of subject matter and of method.

Most of us agree that the presentation of sex-hygiene material should be simple, straightforward, accurate, without sentimentality, and with sufficient detail to satisfy curiosity and discourage morbid, wondering rumination. These books certainly meet many of the above conditions; they contain much excellent, practical advise, as well as many appeals to the idealism of the adolescent. On the other hand, it is our belief that the subject matter as here presented will be more useful in the hands of adults than if given out to youths of either sex, since it is reasonable to believe that boys and girls in their early adolescent period will in many cases have curiosity aroused by allusions to things against which the author seeks to warn them, and

that they will be much more interested in that sort of thing than in the presentation of anatomical and physiological facts which are frequently couched in terms too technical to be grasped by the average twelve- and fourteen-year-old.

Compared with the stress laid on the physical, the emotional aspect of the subject is neglected, such things, for example, as the rumination of children and youths along sex lines being disregarded or dismissed with arbitrary "Don'ts." Although the concrete material which the author presents so fully and ably is the foundation of sex instruction, mental-hygienists know that the more subtle or emotional side must not be overlooked if this teaching is to realize all its possibilities.

ANNE T. BINGHAM.
Mental Clinic, New York Probation and Protective Association.

FROM THE UNCONSCIOUS TO THE CONSCIOUS. By Dr. Gustave Geley. New York and London: Harper and Brothers, 1920. 326 p.

Another one of the many books which the modern interest in matters psychological has called forth and which seem to occupy a sort of border-land position between scientific and popular literature, belonging, perhaps, more particularly in the realm of mysticism than anywhere else. Like many such books, it shows the author to be widely read in all sorts of directions and to be well acquainted with a considerable scientific literature bearing upon his subject, but the reviewer must confess to approaching his task with a considerable prejudice when, on turning to the appendix, he discovered photographs of numerous materializations, spirit forms, conjured into being by some medium and snapped by the camera man on a stereoscopic plate. Some of the pictures are very much like, if they are not actual reproductions of, pictures in a work on materialization recently published which has been pretty thoroughly criticized from all directions. It is difficult for the reviewer to understand how such phenomena can gain serious consideration from the scientific mind.

When, in addition to the above, we note that the book endeavors to fill the gap between the conscious and the unconscious, "which has baffled so many eminent metaphysicists," we are suspicious. And, when, further, we learn that the author not only explains hypnotism and normal and abnormal personalities, etc., but extends his explanations to spiritism, and when we find from the appendix, as above mentioned, that the photographing of materializations is one of his methods of research, and from the text that telepathy is accepted, why, then all the author's learning and all his knowledge of literature, no matter how scientific, fails to counteract the prejudice of the re-

viewer before mentioned, and he feels that the author's learning has been sidetracked and used to prove the existence of pseudo-scientific phantoms. The usual arguments for spiritistic and mediumistic phenomena are made. They are to the effect that we should preserve an open mind and examine the evidence without prejudice. The evidence has been so frequently examined and it is so absolutely unconvincing and petty, and most of it so easily explained upon much less complicated a hypothesis, that it seems useless to repeat the process. Whatever was of suggestive value in the book has, in the reviewer's opinion, been ruined in its usefulness by an association with such unscientific positions and by a metaphysical, not to say mystical, style of presentation.

WILLIAM A. WHITE.

Saint Elizabeths Hospital.

SUGGESTION AND AUTO-SUGGESTION. A Psychological and Pedagogical Study Based upon Investigations Made by Charles Baudouin, Professor at the Jean Jacques Rousseau Institute, Geneva. Translated from the French by Eden and Cedar Paul. New York: Dodd, Mead, and Company, 1921. 349 p.

Baudouin has written a very interesting, though quite unnecessarily circumstantial account of suggestive therapy as practiced by M. Coué of Nancy. If the book is misleading because of the continuous reference to the "New Nancy School," when as a matter of fact the "school" in question consists wholly of M. Coué, a lay psychotherapist of Nancy, it is nevertheless very illuminating in its discussion of the theoretical formulations that are supposed to have grown out of the experiences of M. Coué. These formulations are stated quite fully by the translators in their preface as follows:

1. "The main factor in hypnotic phenomena is not hetero-suggestion, but auto-suggestion; and, as corollary, the chief advantages of psychotherapeutics can be secured without a suggestor and without the more salient factors of the hypnotic state.

2. "Of fundamental importance to success is what Coué terms 'the law of reversed effort'—the law that so long as the imagination is adverse, so long as a counter-suggestion is at work, the effort of the conscious will act by contraries. We must think rightly, or rather must imagine rightly, before we can will rightly. In a word, our formula must not be 'who wills can,' but 'who thinks can, or who imagines can.'

3. "The most significant phenomena of suggestion occur in the domain of the subconscious (unconscious). The new powers which auto-suggestion offers to mankind are based upon the acquirement of

a reflective control of the operations of the subconscious. Herein, as Baudouin shows in his preface and his conclusion, the teachings of the New Nancy School at once confirm and supplement the data of psychoanalysis."

Throughout the book, the author labors to convince the reader of the close kinship between Coué's method and psychoanalytic practice, but actual observation of this method (the reviewer had an opportunity to make this) disclose nothing very startling new, nor is any attempt made in this procedure at a psychological understanding of the individual patient, psychoanalytic or otherwise. This has nothing to do with the fact that Coué possesses an extraordinarily keen insight into human nature, and actually achieves what at times might be termed marvelous therapeutic results. While the book stresses the element of auto-suggestion, the actual practice is not free from a strong element of hetero-suggestion, sometimes in a distinctly hypnoidal state.

In spite of the keen disappointment experienced in the attempt to match the actual performance with the very interesting description of it by Baudouin, the reviewer cannot help feeling that the method, as modified by Coué, has elements of much therapeutic value, especially in helping to solve the practical needs of a very busy psychotherapeutic dispensary. It remains to be seen whether any of the "legitimate" American psychotherapeutists will have the courage, in adopting Coué's method, to practice openly and deliberately what they are actually practicing under the guise of something else.

BERNARD GLUECK.

New York School of Social Work.

PSYCHOLOGY AND PSYCHOTHERAPY. By William Brown, M.A., M.D., D.Sc. With a foreword by W. A. Turner, C.B., M.D. New York: Longmans, Green and Company; London: Edward Arnold, 1921. 196 p.

In the introductory part of this book the author discusses a number of important topics in a very summary way and in a rather schematic manner. In the first two chapters special emphasis is laid upon dissociation, and brief statements are made with regard to the views of Janet, Freud, and Jung, without any detailed discussion of the issues involved. Terms such as neurasthenia and psychasthenia are defined in a rather rigid way, and in rather formal psychological terms, which seem somewhat remote from the concrete data of the clinic.

In the second part of the book the author gives a summary statement of Freud's theory of dreams and of the unconscious, and then passes over to discuss theories of emotion.

The third part is devoted to psychotherapy. Here the author lays stress upon the growing insight of the patient into his own mental condition (auto-gnosis) which is brought about by medical analysis. The psychoneuroses of war are discussed with illustrative examples, while the last chapter is devoted to somewhat abstract and unproductive discussions on the relation of mind to brain.

For the worker who is not familiar with psychopathology the book is probably too summary in its treatment, but it may be of value in presenting, in a condensed form, many of the leading issues.

C. Macfie Campbell.

Boston Psychopathic Hospital.

Our Social Heritage. By Graham Wallas. New Haven: Yale University Press, 1921. 291 p.

This book needs no recommendation to those who know the scholarship and penetrating insight of Graham Wallas. Not so distinguished a piece of work as his *The Great Society*, it is, nevertheless, a trenchant exposition of a problem whose main outlines are suggested and argued without pretence of exhaustive consideration. The author's clear analysis and admirable illustrative material cannot be adequately indicated by a brief resumé of his thesis.

Social heritage he defines as that part of our nurture consisting of the knowledge of expedients and habits that were originally the personal acquisition of individuals, but that have been afterwards handed down from one generation to another by the process of teaching and learning. Man is becoming biologically more fitted to live with the help of accumulating arts and sciences, and less fitted to live without them. This contention, however, does not involve any Lamarckian assumption, but merely implies that those families which were more able to acquire and perpetuate social heritage would tend to survive and those parts of the nervous structure which the existence of social heritage rendered less necessary for survival would tend to degenerate. "Each generation, if it is to live happily and harmoniously, or even is to avoid acute suffering, must adapt to its present needs the social heritage which it receives from the preceding generation.

"The exhaustion of an old source of supply of food or raw materials, the appearance of a new disease, or an increase of population, may, of itself, make obsolete old arts and sciences and customs, and make new discoveries necessary. A new discovery . . . may compel the readjustment of tradition in a hundred ways."

The discussion is restricted to an inventory of the social heritage concerned in our organizations, political, economic, governmental, and religious.

The power of making sustained, conscious muscular and mental effort is not biologically inherited by man, but is acquired, the author contends. The scientific psychologist might take issue with him here, but Professor Wallas' amplification of the hypothesis arrests the attention. The change from intermittent to continuous effort was necessary for man to attain civilization, and he was obliged to invent methods of compensating for the resulting nervous strain or fatigue. Thus he learned to avail himself of the "drive" of artistic impulse and of the help of logical methods to increase efficiency.

Human conduct does not seem fully amenable to study by these rigid methods as do the physical sciences; therefore other technique, such as the Freudian psychiatry, has developed and various educational systems have been tried, resulting in the recognition of the need of more conscious intellectual effort in directing our activities.

In his chapter on group coöperation, Professor Wallas shows that it depends on a combination of socially inherited expedients as well as on the biologically inherited gregarious instinct. The former factors of discipline and discussion seldom yet prevail, but are ultimately eliminated by the clamorous primitive impulses to lead and to follow, as, for example, even in the British cabinet experts succumbed to the domination of Lord Kitchener against their own expressed emotional and intellectual inclinations regarding the Dardanelles decision.

Coöperation among members of a large group such as a nation is more dependent on social heritage. To create a trustworthy idea of the nation and play a part in its coöperation, it is necessary to maintain a conscious "problem-attitude"—an attempt to ascertain the differences between individuals both quantitative and qualitative. Study of this kind discloses that national coöperation cannot be achieved unless habit is based on contentment, and contentment is impossible without relative social equality, a clearer understanding of economic facts, and a greater positive liking by the individual for the work he does. The enjoyment of work can be increased only by a widespread and conscious policy of the better fitting of tasks to men and women. "An almost unimaginable increase of personal happiness, social contentment, and economic efficiency would result if the achievement of a more complete adjustment of tasks to individual differences became the organized and effective purpose of modern civilization." Educational policy appears to have but two alternatives—either sacrifice the above object and treat all children as nearly alike as possible to strengthen the idea of social equality and inculcate the principle of democracy, or sacrifice the latter ideal and base educational treatment on differentiation for the sake of diminishing human waste and realizing industrial coherence. The reviewer here

is led to ponder: Is there not a way out of the difficulty through the very change in our social heritage of democracy, in which a new significance may attach to the principle in the light of knowledge regarding the distribution curve of intelligence?

In Chapter V the question of the means of controlling national coöperation is considered.

An examination of vocational organization reveals that with its advantages of human solidarity must ever be mixed the disadvantages of friction and confusion due to loss of zest in work which large-scale production involves because robbed of variety. Yet so marked is the tendency in man to shrink from change that it is hardly offset by the annoyance of monotony. "A workman who can shift from one process to another is more likely to feel zest in his work." There is greater gain from transferability than loss from decreased skill following each change, the author asserts, and flexibility is particularly necessary for neurasthenics, by whom "more than half the work of the world is done," according to a quoted physician.

The profession of the law, the most powerful of the English vocational organizations, shows the dangers of uncontrolled vocationalism most clearly. Mr. Wallas laments that the study of psychology does not form an important part of the lawyer's training, for the legal profession remains very nearly stationary as to its body of opinion concerning human motive. Its naïve and primitive conception of voluntary and involuntary acts has continued unrevised in British law since the seventeenth century.

The organized medical profession does not show the same shrinking from the effort of rehabituation, although it, too, receives some sharp thrusts. Its defects are perhaps more administrative than intellectual. So, also, certain machinery in the military profession is still retained because of ancient tradition, though indefensible in the light of present-day knowledge of psychological facts.

The teacher has enormously gained from the recent growth of professional organization, but in its train has come likewise the hostility to change. "Every new scientific discovery, every new movement of human thought, every change in the relation between states or races or classes, brings with it the need of a new distribution of the time and effort of teaching and learning." But vocationalism in this field is not keenly sensitive to these influences, for "standardization" is its objective. Professor Wallas gives somewhat extended attention to the "pecular psychology" of the teaching life, as he calls it, and its tendency toward nervous deterioration.

The psychological facts that give political force to the idea of liberty may be seen in the results that follow from the obstruction of

human impulses. Obstruction by human agents produces a different reaction from that produced by non-human causes.

For civilized man the principle of liberty can never be absolute because his social heritage interposes the obstruction to his impulses. Pericles' conception of liberty showed more scientific insight than did that of Mill, whose celebrated essay, Wallas points out, failed to take account of the interaction of the impulse to lead and the impulse to follow which marks the process of coöperation. Mill's statement that "each individual is the proper guardian of his own health, whether bodily, mental, or spiritual," is hardly tenable in organized society.

Other traditional principles of natural rights, honor, and independence have arisen from certain psychological facts—viz., the reactions of unfreedom, wrong, and dishonor caused by the obstruction by human action of the normal function of some instinct. We have come to rely on the judgment of our public officials in determining the limits of these principles, when as a matter of fact experience has shown their decisions to be often in error. The author, for instance, holds the view that judges should be required to consult trained psychological assessors, and that it would probably be better that all criminal sentences be indeterminate and the whole treatment of prisoners after conviction be controlled by medical and psychological experts.

A thorough understanding of the psychology underlying these conceptions of liberty, right, independence, nationality, etc., must become widespread before we can reach the rational calculation and calculated action that will make world peace. On the other hand, it is true that the effect of acquaintance with science seems to be an increased feeling of helplessness in the individual facing this problem. Darwinian determinism makes wars more likely, psychological determinism diminishes personal initiative and responsibility. But neither can predict what may be the course of our social heritage of the future. If a renascence of intellectual energy should come, the organization of emotion now held by the church may take a new direction away from mysticism toward the object of world coöperation as a new compelling desire.

Miriam C. Gould.

Vassar College.

August Strindberg: a Psychoanaltic Study with Special Reference to the Œdipus Complex. By Axel Johan Uppvall. Boston: Richard G. Badger, 1921. 95 p.

This is a curious sort of book. The author is an instructor in the Department of Romance Language at the University of Pennsylvania, although the study was made as a graduate student for a degree of

Doctor of Philosophy at Clark University. As an academic exercise in partial fulfillment of the requirements for a degree, it is, no doubt, satisfactory; as an examination and diagnosis of Strindberg, one may, at least, wonder.

One's puzzlement begins in the Preface. "This dissertation represents an effort to approach Strindberg's exceedingly complex personality from a psychoanalytic point of view." The analysis is to be along Freudian lines; not because the author accepts wholly the Freudian teachings, for he says that he doesn't, and not because he does not believe that Jung and Adler and Hall and others have contributed elements that are missing in Freud, for he says that he does, but—he comes awfully close to saying it—because it is easier than the "anagogic interpretation of psychic phenomena by Jung, Silberer, Maeder, and others" and, therefore, appeals to the "inexperienced analyst."

A student may choose an "easy" method in working at a problem if the problem is to be just an "exercise"; but once the "exercise" is accomplished and the requirements for the degree satisfied, why does it not still remain just an exercise and repose with the rest of the academic exercises in the archives of the college library? By what means does it suddenly become more than an "exercise" and impose itself as a book, as a result of which the publishers may announce that Strindberg "ceases to be an insoluble problem"; "like so many other men of genius, he labored all his life under the crushing weight of his Œdipus complex. His chaotic life demonstrates beyond a shade of doubt that he suffered from organ inferiority." What in all modesty started out as an "exercise" with a method admittedly inadequate, but deliberately chosen because it was the "easier for an inexperienced analyst," and was, after all, sufficient to satisfy the academic requirements, is now become a formal, presumably authoritative study and diagnosis of Strindberg, and the public is asked to pay money for it on this basis. The author may object that he has made a "study" of Strindberg and not a "diagnosis"; but that would be sophistry.

To prepare this thesis, it was necessary for the author, as a student, to familiarize himself with the literature of psychoanalysis (quite a different thing, however, from familiarizing himself with psychoanalysis clinically), to study as fully as possible the life of Strindberg, to examine carefully as much of what Strindberg wrote as is available, and to cull out those passages that seem significant. An excellent task as an exercise. And the task, undoubtedly, has been carefully and conscientiously done. Had the work stopped here and the degree been granted, there might have been a good "source book"—not adequate, perhaps, for is it possible for one dependent

alone upon his knowledge of the "literature" of psychoanalysis even to pick out significant passages, except, perhaps, the more obvious and, therefore, not unlikely the least valuable ones? But as a book of selected source material it might have had value.

Whether this would have been sufficient to satisfy the requirements of a doctor's thesis, I do not know. Evidently the author felt not, for he does not stop, but proceeds to piece together a "cut-up" puzzle: Freud says this (quote) and this is what I have found in *A Fool's Confession;* Adler, loc. cit., writes (quote) and in *The Son of A Servant* Strindberg wrote (quote). Now and then, the author changes the formula to "If . . . and . . . and if . . . then this." At critical points he calls attention again, in all frankness, to the fact that his inexperience and lack of knowledge make him inadequate to judge certain material, but, with one condition piled upon another, he finally makes a judgment and then, straightway forgetting the way by which he has come— accepts the judgment as authentic.

The author's conclusions are that Strindberg (if . . . if . . . and providing . . .) was homosexual; that he suffered from a pathological psycho-sexual fixation on the mother; and that a "not inconsiderable hereditary *Belastung*" manifested itself in "organ inferiority and consequent hypertrophy of nervous function."

FRANKWOOD E. WILLIAMS.
The National Committee for Mental Hygiene.

THE PSYCHOLOGY OF SOCIAL RECONSTRUCTION. By G. W. T. Patrick. Boston: Houghton Mifflin Company, 1920. 260 p.

This book is a criticism of current programs for extensive social reconstruction on the ground of their failure to take full account of psychological factors; it is an interpretation of such plans "in the light of recent psychological studies—particularly studies in certain forms of instinctive behavior." The author expresses sympathy with the aims of social reconstructionists to better the condition of living for the masses, but insists upon proper psychological foundations.

The proposed reforms are political and economic, the author argues, whereas "life is determined by a great mass of inherited instincts, interests, and passions." The goal of social reconstruction should be the adaptation of the social order to the people who are to live in it. Men change slowly, while society develops rapid changes in organization, and the result is maladjustment. The proposed social reforms exaggerate the situation by abrupt efforts to adapt a new social order to man as he has existed for centuries. The citizens for the new society are lacking, declares the author, because "human beings will

not serve." The proposed future is declared, for present-day human beings, to be "drab and uninteresting" and devoid of romance because it is built upon a pleasure economy, whereas man has struggled up through a pain economy. Long periods of education are needed to revise the instincts of man to fit the new order.

The discussion of the psychology of work adds to the limited literature of the vast subject of instincts in industry. The brief argument in this book shatters the idea that man loves to work and that he will be happy with short hours and good pay. The practices of efficiency experts to get the interest of workers by organization fare no better, because work in which the creative instinct of man has no part becomes drudgery. The future of industry depends upon giving an opportunity for the "instinct of workmanship." Industrial partnership is therefore favored. The author gives a hopeful view by pointing out that a large part of our workers—on the farms, in the small shops and individual employments—will have an opportunity for the development of the creative instinct and the "instinct of workmanship."

Interesting chapters, related to the main theme, are given on our centripetal society, social discipline, and next steps in applied science.

The book should have a wide influence because of its simplicity, directness, and incisiveness of statement. In reading it, one is reminded of one of the sayings of Mr. Dooley—in substance that a man who would promise to teach lobsters to fly in a month would be called a lunatic and be locked up, but the man who expects that people will be made good by an election is called a reformer and remains at large.

The book errs in painting the deficiencies of social-reconstruction plans too luridly. By no means do all plans so completely ignore the psychological factor. Practical social reformers have studied social behavior much more than is implied in this book. Even the politician is noted for crude, but effectual, understanding of people. However, the need is great, and an overstatement may draw attention where a more precise analysis would fail.

JOHN A. LAPP.

The Nation's Health, Chicago.

THE BASIS OF PSYCHIATRY (PSYCHOBIOLOGICAL MEDICINE). By Albert C. Buckley, M.D. Philadelphia: J. P. Lippincott Company, 1920. 447 p.

The book is described as a "guide to the study of mental disorders for students and practitioners." With this intention of guidance in mind, one wonders where the student would be led by the first para-

graph in the preface: "As the domain of general medicine in recent years has become considerably broadened and many of the newer facts have been brought to light through the channels of biology, and as the field of 'traditional general physiology' has become more or less fully occupied by experimental biology, so the mode of approach to the problems of psychiatry is following similar trends. This change in the direction of approach to psychiatry has come about through the development of a closer relationship between the subjects of biology and psychology; in fact, the two branches of science overlap to the extent that in the study of many problems it is difficult to determine where one begins and the other ends, for the reason that it is but the same 'science' viewed from different aspects."

One might question the accuracy of the statement that biology and psychology are the same "science" viewed from different aspects. Next comes a paragraph to the effect that the viewpoint that "psychology is a science of behavior" is being "widely accepted," but it is not clear whether the author accepts this viewpoint, nor does he discuss here the relation of such a viewpoint to psychiatry. Instead there follows: "As physicians and practitioners, we have come to consider the group of mental disorders which belong to the class of recoverable psychoses not primarily as mental diseases, but as reflections of some bodily disorder which, through its effect upon the organs of adjustment—the nervous mechanism and its lower and higher (psychic) reflexes—prevents the patient from making appropriate adaptations to environmental conditions, and therefore constitutes a thoroughly biological problem." The student might ask whether unrecoverable psychoses were not to be considered a reflection of "some bodily disorder," and one wonders whether the author considers that abnormal thinking and feeling and acting are necessarily such reflections. From the statement, however, that the "bodily disorder . . . constitutes a thoroughly biological problem," and from the statement in the Introduction that "mental phenomena, both in health and disease, are representatives of the biological reactions of the individual as a whole," one assumes that the author looks upon biology as the basis of psychiatry, and that all abnormal reactions in which psychiatry is interested had best be looked upon as biological phenomena. But that this is not an entirely correct assumption, apparently, is indicated by the reservation shown in the last paragraph of the Introduction: "Viewing the nervous mechanism as the organ of adjustment, and as a means by which not only organs and systems are governed, but also the organism as a whole is brought into adjustment with environment, the problems of psychiatry must be approached, *in part at least*, from the biologic view-

point." (Italics the reviewer's.) The student may well ask himself whether he has misunderstood the author's previous statement, or whether, perhaps, the author himself was not quite clear as to whether or not psychiatric problems are *entirely* biological problems; he might ask, too, through what other avenues of scientific investigation the problems of psychiatry may be approached. He should be spared the pains. however, of searching through the book for answers to his questions, for he would not find, as the reviewer has not, an answer to his inquiry. Although *Psychobiological Medicine* is used as a subtitle for the book, the term is not used or explained in the text, and the student not familiar with Meyer's formulation of what he means by "psychobiology" would probably be doubtful as to its significance.

The main text of the book consists of two parts. Part 1 contains chapters on biological phenomena, cerebral development and receptive apparatus, mental development, psychological processes, etiological factors in mental disorders, exciting causes, classification, symptomatology, and methods of examination. Part 2 treats of the psychoses in particular, and includes chapters on psychoses with somatic diseases, toxic psychoses, general paralysis, the schizophrenic psychoses, the cyclothymic psychoses, the dementia-praecox, manic-depressive problem, psychoneuroses, psychopathic states, paranoia and paranoid states, psychoses with organic brain disease, and psychoses of the senile period. The author purposely omits consideration of the "agenetic types or defective groups," although the "purpose" is not indicated.

The chapter on biologic phenomena in the first part covers 40 pages and includes descriptions of the nervous systems of the lower animals, a brief attempt at description of the form and development of the vertebrate nervous systems, brief reference to the functional divisions of the nervous apparatus, and a rather extended description of conditioned reflexes. In the same chapter is a section on heredity which contains detailed, lengthy presentations of the development of the sex cells, fertilization, Galton's law of inheritance, and the Mendelian law, with special reference to the fruit fly. The chapter ends with remarks on the crossing of plants. One feels the lack in this chapter of an application to the problems of man, and one is curious to know what determined the selection and segregation of the above mentioned topics as biological phenomena, especially when, in the next chapter, the development of the human brain and receptive organs is again taken up, with notes on the localization of function. The treatment of the latter is somewhat contradictory. The

receptive organs are described as found in the lower animals; under "olfactory sense receptors" the illuminating statement is made: "Recently experiments have been conducted which seem to show that snails are provided with olfactory sense apparatus, though morphologically it has not been demonstrated." The vegetative nervous system is touched upon in a way that is not always clear as to the differentiation of the terms "vegetative," "autonomic," and "sympathetic," and it is maintained that "the importance of the autonomic system seems to have its greatest bearing in connection with mental states shown in the form of psychomotor reactions which accompany the various emotional states." In this statement, as is frequently the case throughout the book, just what the author means is not clear; we presume he does not believe that the main purpose of the vegetative nervous system is to function in the "various emotional states."

In the chapters on mental development and on psychological processes are found combinations of observations drawn from plant and animal reactions and the speculations of introspective psychologists. The latter chapter opens with the statement: "At the same time that the individual becomes aware of the effects of stimuli—that is to say, when a state of consciousness exists—he experiences additional subjective phenomena which are included within the meaning of the term 'mental.' These subjective experiences are collectively known as 'mental processes' and are to be distinguished from purely physical nervous (neuronic) phenomena." How much such discussions contribute to the understanding of human normal and abnormal behavior the author does not indicate. He apparently has not reached the point of considering the attempt to contrast mental and physical medically useless. In contrast to this lengthy description of other biological phenomena, the problems of the unconscious, with brief notes on the work of Freud and Jung, are treated in 4 pages. Nothing is said of the driving forces of the instincts, of wish-fulfillment, and of their influence on human behavior. The only reactions mentioned as resulting from lack of adjustment to conflicts are "hysterical and psychoneurotic." There is only a very brief reference to dream life, leaving the impression that the dream as a biological phenomena is of importance only as it indicates "mental trauma."

Under etiological factors, emphasis is placed on predisposition, which is held to be essential to the development of abnormal reactions, whatever other cause may be operative, and the author reasons in a circle that if a person develops a psychosis he is predisposed, and because of his predisposition he develops a psychosis. This pre-

disposition, although its exact nature is unknown, is to the author dependent on some physical condition.

Under the heading, *Age as a Predisposing Factor*, is found a statement that middle life furnishes the greatest number and variety of psychoses, as "at this time mental development has been completed and typical reactions are thus made possible."

Under exciting causes are discussed infection and exhaustion (with notes on focal infections under the latter heading), toxic causes, and auto-intoxications. Internal secretions and disorders of glandular activity are considered under separate headings. Then comes a section on "disease toxins—syphilis and tuberculosis." Why they are separated from consideration with other infectious diseases is not indicated, but we do learn that gumma, meningitis, and endarteritis are excluded from "the syphilitic psychoses" because they are "organic brain diseases."

Under the heading, *Chronic Disease Not Primarily of the Nervous System*, along with anæmia, gout, and diabetes, "traumatic causes" are considered, with specific reference to the study by Meyer of head injuries. One wonders what these traumatic affections may be if they are not "primarily of the nervous system." We are also told here that "the mental symptoms accompanying sunstroke are produced as the result of meningitis," which is news to the reviewer and would be, he thinks, to most other medical men. Epilepsy, hysteria, Sydenham's and Huntington's chorea, traumatic neuroses, and paralysis agitans are discussed under the heading *General Nervous Diseases*, although it is clearly stated that hysteria is of psychic origin. Finally, as exciting factors, "psychic causes" are treated in a page, the author's attitude throughout the entire book being well represented by the statement: "The more carefully one investigates the factors supposed to operate in the production of mental disorders, exclusive of the psychoneuroses, through a direct action upon the mind, the less important do they appear to be." Emotions are alleged to affect the "general health"—"the physical health is undermined and the psychosis appears."

Personality and its influence on the psychoses are mentioned as having been considered "in recent years." Hoch's demonstration of "shut-in tendencies" is merely referred to, with no attempt at an explanation of the term.

In the chapter on symptomatology the old physical-mental difficulty comes out, as shown in the following paragraphs: "The symptoms of mental disorders are those which follow a disturbance, either functional or organic, in some part of the nervous pathway extend-

ing from the periphery to those centers and pathways concerned in the mental processes.

"Normal psychology studies, in the course of its investigation, sensation, perception, emotion, volition, and other mental processes. A study of psychiatry involves the consideration of the same mental processes which have become exaggerated or diminished in their capacity for action."

Thus a student would presumably be led to believe that "perception, emotion, volition, and other mental processes" affected are localized in "centers and pathways" in the nervous system, and so have his interests misdirected to seeking these out instead of concentrating on acquiring available facts regarding a patient's whole behavior—including the way he thinks and what he thinks about—and what determined such behavior. That it is the abnormal behavior of the individual that is essential is obvious from the symptomatology as given by the author under the headings *Disorders of Perception, Attention, Consciousness, Orientation, Emotions, Memory, Train of Thought and Content of Thought.* At the end of the chapter one meets without warning a short description, with diagrams, of Wernicke's "reflex arc" and "concept center," with no critical discussion, and one is left puzzled as to the why and wherefore of its introduction.

The chapter on methods of examination contains very satisfactory directions for the anamnesis. In line with the author's emphasis on "predisposition," a great deal of space is given to "stigmata of degeneracy" in directions for the physical examination. The mental-examination directions are essentially a repetition of the previous description of the symptoms. And one is reminded of a textbook on clinical pathology in the long and detailed description of the Wassermann-reaction technique, the spinal-fluid examination (in which errors are evident), and directions for the determination of blood alkalinity and urinary acidity; of the causes for the latter examinations no mention is made in the text. The advisability of an ordinary urinary examination and blood count is not suggested.

In the second part of the book, the various abnormal reactions are taken up in detail, following in general the classification of the American Psychiatric Association, and the reactions are in general treated as disease entities, with symptomatic descriptions under the headings already indicated in the chapter on symptomatology. For the so-called functional psychoses, the vague "predisposition" is insisted upon as the cause, with emphasis on physical factors and minimization of possible psychogenic factors. The relation of psychotic symptoms to conscious or unconscious strivings or wishes of individual

patients is not discussed; the presentation contains only a very occasional attempt at a clinical picture of an individual case, and in no instance is an attempt made to bring all the facts together in the life story of a patient.

In the chapter on the manic-depressive, dementia-praecox problem, these psychoses are referred to as "biogenetic psychoses. These include psychoses the causes of which are unknown and concerning which the investigator is led into various speculative fields in the hope of being rewarded with the privilege of placing them in the category of definite toxic or organic psychoses." Just why such a placing should be a "privilege" is not indicated. Presumably it would not be an advantage to the patient? The fruits of the discussion, the value of which is left for the reader of this review to determine, are shown in the last paragraph of the chapter: "The dementia-praecox, manic-depressive problem appears to resolve itself into that which develops upon an inherently defective foundation. One is a fundamentally *qualititative* disturbance, the other *quantitative*. The dementia-praecox cases present an original defect, which is intensified by some as yet unknown operative cause. The manic-depressives represent an altered quantity in reaction without change in time. Success in establishing the difference in diagnosis between these two psychoses will depend upon the possibility of separating the two types of reaction."

It will no doubt be conceded that Dr. Buckley's book has demanded a great deal of time and effort in preparation, and that his attempt to present the subject of psychiatry as one of special biological reactions is to be highly commended; to write a comprehensive and satisfactory guide or textbook on psychiatry is no mean task. Whether the author's attempt has resulted brilliantly will be a matter of opinion, and the reviewer has attempted to present facts from the book to enable the reader to form such an opinion. The reviewer feels that there is left much to be desired with respect to consistency and breadth of viewpoint, choice of material, and conciseness and clearness of statement. One has a feeling that much of the subject matter, especially in the first part, does not hang together, and that to the student confusion would result. Divergent viewpoints are presented without critical discussion or digestion, a method always leading to difficulty for the reader who has not had sufficient experience to draw his own conclusions. It is felt, however, that these indicated alterations might well be made in subsequent editions so that the book might become one that could be recommended as a guide to the student and practitioner.

CLARENCE O. CHENEY.

New York Psychiatric Institute.

MENTAL FATIGUE. By Gilbert E. Phillips, M.D., D.Sc. Thesis approved for the degree of Doctor of Science in the University of London, 1920. Sydney: William Applegate Gullick, 1920. 103 p.

In this publication, based on work done in the Psychology Laboratory of the University of London, the experimenter deals exclusively with mental fatigue, using Thorndike's definition of fatigue—"that diminution of efficiency which rest can cure."

Dr. Phillips discusses the production and transference of fatigue and the curve of fatigue and of recovery upon the basis of fairly well controlled tests, chiefly with multiplication and cancellation. The work is well described and illustrated by many tables and graphs. He presents many interesting conclusions, which, if further substantiated, ought to be of value to educators and employers seeking to stop short of excessive fatigue in their demands upon their workers. Some of his conclusions have already been quite generally accepted on the basis of other research—for example, that the beneficial effect of a rest is not proportional to its length if productivity is the criterion. He believes that for each task a rest may be estimated that will be long enough to dissipate enough fatigue and short enough to preserve some of the incitement effect. This has been worked out satisfactorily in some educational and industrial institutions.

His most interesting experiments are in regard to the transference of fatigue. He believes that fatigue is a general phenomenon, not specific to the task being performed, but that it effects specific powers differentially. "A subject whose power of multiplying deteriorates owing to general fatigue of all his powers may not deteriorate to the same extent, say, in memorizing or dotting." He likens this specific deterioration from a general cause to the successive loss of function in various areas of the brain under general anæsthesia. On the basis of tests involving very different ability, he comes to the conclusion that he is dealing with a specific transference of general fatigue rather than a transference of a specific fatigue to other tasks having large common factors, as some others believe. He finds a high average correlation between depreciations in the same test after various kinds of continuous work. The transfer of fatigue, then, is specific for each individual, and for each task that individual may perform. The question is not taken up whether there is a constant specificity for each individual. In applying this theory to education, he calls attention to the fact that the difficulties are greater than in applying the theory of specific fatigue for tasks with large common factors. His solution of the practical difficulty thus evolved is striking an average, or allowing the majority to rule in regard to the sequence in the daily

curriculum. If Dr. Phillips' theory proves sound, the problem of change of task is far more complicated than merely avoiding long-continued work along similar lines.

In regard to the relative advantages of a change of work or a period of rest, he says, "We answer emphatically that change of task is not as good as a rest, but it may be better than no change of task at all or than an inadequate rest." Fatiguability, he concludes, is different for each subject, and susceptibility for fatigue is specific, not general. In other words, every task performed does not show a correspondingly large fatigue effect. Fatigue, he believes, does not depend upon the difficulty of the task, but upon the intensity of effort. When working at maximum effort, the rate of dissimilation is constant and involves the same amount of energy, whatever the task. Mental fatigue is apparently not due to a deposit of lactic acid in the brain, but is due to "a failure to produce by assimilation a sufficient amount of mental energy to balance its dissipation by dissimilation." This he believes is not constant for the individual, but varies with the task.

Dr. Phillips' work is intensive rather than extensive. It is subject to the same criticism that must be made of most laboratory investigations of fatigue—that the diagnosis of fatigue is made on rather inadequate data. Diminished capacity for work may be due to fatigue or it may be due to some other chemico-physical and psychic change lessening mental or physical output. Phillips refers t possible boredom, and has endeavored to counteract it. But can any laboratory experimenter ever be sure that no other possible emotional or physical causes were responsible for the diminished efficiency supposedly due to fatigue? It seems doubtful whether the innumerable inestimable subjective factors can be entirely eliminated, and the tests ever be purely objective. The diagnosis of fatigue in the individual is one of the most difficult we are called on to make, even after the most searching physical and mental examination. Yet, unless it is made in the individual, how can it be made in the aggregate? We need both intensive work along the line of Dr. Phillips and extensive work with a vast number of individuals under the most carefully controlled conditions before we can come to accurate conclusions either as to the nature of fatigue or the methods of testing it. And then we shall have the problem of applying our knowledge to everyday life.

The early part of this publication is taken up with a good review of the work of others in testing fatigue, by the methods now not generally accepted of the æsthesiometer, the ergograph, and tests with speed of reaction. There are many references to the literature on the subject of fatigue.

FLORENCE L. MEREDITH.

Woman's Medical College of Pennsylvania.

THE CAUSES AND CURES OF CRIME. By Thomas Speed Mosby. St. Louis: The C. V. Mosby Company, 1913. 354 p.

It may be a platitude of the dullest order to say that we have forgotten the Great War and its lessons. We have forgotten it, probably, because we wish to forget it. Nevertheless, even the reviewer of books cannot escape constant reminders of it in the persistent cleavage that he finds between books written before the war and afterwards. This is true even in such remote subjects as criminology and matters connected with delinquency. It is true, therefore, of Mr. Mosby's book. Our general concepts have been so altered by the war and its results that even without looking at the date of this publication (1913) and after reading only a few pages, one is brought up abruptly by the persistent thought that had it been written in 1920, it would have been compiled from an entirely different point of view. The experiences of the last five years have shifted the interests, even of the most abstruse scientists, from the abstract to the concrete—from particular artificial groups, in which the individual disappears, to the individual himself.

Mr. Mosby's book deals with the vague entity that is called "crime." It tells us almost nothing about what we are most interested in—namely, about the criminal himself; about that varying type of personality which refuses to merge itself in the routine of action imposed from the outside by law, and which meets with certain unpleasant resistances in its effort to make its own kind of adjustment to objective demands. Curiously enough, Mr. Mosby seems to have felt this need of making a book on crime valuable by an attempt to understand the human elements that create it, and without which it is, itself, but an empty word. For he has scattered throughout his book a series of interesting photographs taken from the records of the police department of Kansas City; photographs of individual law-breakers arranged in groups— types of burglars, of forgers, of murderers, and of other delinquents. These photographs, however, have not the slightest connection with the text of the book. They are not even mentioned in it. Had Mr. Mosby been able to write, let us say, a chapter on forgery, based on a study of the personalities of those individual forgers whose photographs are included in his work, and had he been willing to base his theories and conclusions concerning the crime of forgery on the analysis of such antisocial individuals, he would have made a definite and more or less valuable contribution to criminology. He has chosen, however, to treat what he calls "crime" in the manner of a man lecturing before a Chautauqua audience on Mesopotamia, who gives his hearers a general discussion on *Wanderlust*, on the psychology of traveling, on the types of steam-

ships and railways plying between America and the Far East—adding, perhaps, a carefully arranged curve based on the percentages of travelers who, on their way to Mesopotamia, are attacked by seasickness as compared with those who are so attacked in traveling to European ports, together with another concise table of the fees extorted by the steamship stewards—but tells his audience nothing definite about the people who go to make up that particular part of the world called Mesopotamia, their habits, customs, and the elements that distinguish them from the inhabitants of Main Street, Peoria, Illinois. All this may seem ungracious criticism of a writer who has evidently at heart the welfare of his fellows, and who is attempting to interest the general public in one particular class of his less fortunate fellow-beings.

Perhaps the most interesting element in Mr. Mosby's book is his treatment of his subject from a quasi-medical point of view. He divides his book into three divisions: etiology, or the causation of crime, cosmic, social, and individual; prophylaxis, or the prevention of crime, under which head he treats of eugenics, asexualization, and social amelioration; and therapeutics, or cures for crime, under which he discusses punishment and the theory of punishment, the indeterminate sentence, parole, and what he calls the new penology. It would be unkind and unnecessary to pick flaws in these various chapters, for after all the main fault in the entire work is the basic one that has already been mentioned—namely, the treatment of the problem from the standpoint of the social group instead of from that of the individual. The group of people whom Mr. Mosby calls "criminals" is an unreal thing that cannot be distinctly and scientifically defined, and that runs over imperceptibly into the mass of general humanity. The individual law-breaker, on the other hand, is something definite, something that can be studied and perhaps—understood. He, too, of course, cannot be absolutely bounded by lines of criminal demarcation. He also runs over in the boundaries of his personality into law-abiding activities. He is not always the law-breaker and always antisocial. If he were, the problems of his personality would be much simpler. Nevertheless, he is more concrete and more susceptible to analysis than that loosely defined artificial group of delinquent individuals which is called "the criminal class." To use another illustration, Mr. Mosby is like a scientist engaged in writing a book on chemistry, who discourses in general terms on some complex chemical compound which contains innumerable radicals many of which are yet unknown to science, instead of attempting to study the nature of the molecules or the atoms which are the basic elements composing all chemical substances. Without a knowledge of the nature and activities of the atoms, the writer would

surely be unable to give to his readers any abidingly useful conclusions about his complex substance.

However, accepting Mr. Mosby's viewpoint as it is, one feels bound to congratulate him on the great amount of reading that he has done in preparation for his book, for the spirit of kindliness and understanding in which it is written, and for the loving care that he has lavished on the entire work. It is true that his reference to other writers are often somewhat vague, and that in many instances he does not cite chapter and verse of his authority, so that one can verify his references. One gets also an impression that several chapters of the book were delivered as addresses at various times. The style frequently changes abruptly from the quiet reasoning of the scientist in his study to the impassioned, somewhat highly colored speech of a lawyer addressing a body of his colleagues, or endeavoring to convince an apathetic jury.

The chapter on parole contains a useful summary of the parole laws that were in force in the different states of the Union in 1913. Unfortunately, however, it is the fate of such compilations to become rapidly out of date, because of the constant changes in the state laws each year. Nevertheless, Mr. Mosby's compilation will be valuable as a foundation for similar statistics in the future.

Perhaps the most interesting chapter is that dealing with the theory of punishment and the vexed question of capital punishment. Mr. Mosby feels, as many other lawyers do, that capital punishment should cease. Any one who has ever been forced to be present at an American execution will without doubt agree that the present mode of the infliction of the death penalty is brutal and unnecessarily cruel. This is especially true of hanging, even when it is most carefully managed. But because our present methods of inflicting capital punishment are so abhorrent, it does not follow that death, as the supreme penalty for certain crimes, is in itself wrong and barbarous. The objection to capital punishment in the minds of most men has its roots in an overemphasis on the value of human life. Those of us who have spent any length of time in the Far East, where the individual human life is of little value and where capital punishment is inflicted for numerous offenses, but inflicted almost instantly and with a minimum of suffering, cannot always share the average man's aversion to the death penalty. Moreover, many others who were brought into close contact with the events of the Great War learned the relative unimportance of the individual life. Men with this reference became accustomed to see or to hear of the deaths of thousands—not of mentally deficient or of antisocial law-breakers, but of the very best of our own manhood. They have, as a result, never been able to readjust their ideas to former standards and have little pa-

tience with the wastage of time and money spent in deciding between the life or the death of some low-type murderer, whose existence is of no value to any one and without whom the world would be decidedly cleaner and better. This is only another one of the many points in which Mr. Mosby's own mental reactions would probably have been clothed in somewhat different language had he written his chapter on capital punishment to-day instead of eight years ago.

On the whole, those of us who are interested in the problems of delinquency must be grateful to Mr. Mosby for his book, and for all the labor that he has undertaken in producing it. Even if one does not entirely agree with his point of view, the book stimulates discussion and is written with enough freedom and brightness of style to interest the man in the street. And after all, the man in the street is the person whom it is important to reach.

JOHN R. OLIVER.

Medical Service, Supreme Bench of Baltimore.

SYPHILIS OF THE CENTRAL NERVOUS SYSTEM; ITS PATHOGENESIS AND TREATMENT. By Wilhelm Gennerich. Berlin: Julius Springer, 1921. 270 p.

In this monograph Gennerich discusses the causes and treatment of syphilis of the central nervous system. The study is based upon the results of treatment of cases of syphilis with involvement of the nervous system, in an endeavor to learn what can be accomplished. Gennerich divides the cases roughly into those that have been treated with mercury before the salvarsan days, those that have been treated with salvarsan and mercury combined, and finally those that have been treated by the intraspinal method. His work is probably the most extensive study that has been made of this subject. He takes up the various types of central-nervous-system syphilis, including the early cases that present no definite symptoms, but in which there is evidence of an invasion of the central nervous system by the spirochete, and the various types of clinical cerebro-spinal syphilis, tabes, paresis, and the like. There is, in addition, a good deal of theoretical discussion. Much of his theory is subject to severe criticism and his methods of treatment are not as inclusive as one might wish; nevertheless, it would seem that this work is the most satisfactory that has yet been produced on the subject of the effect of treatment upon syphilis of the central nervous system.

Gennerich is a syphilologist of note whose interest in syphilis of the central nervous system is incidental to his interest in syphilis as a general disease. He has, therefore, certain advantages over the neurologist and the psychiatrist who study the manifestations of nervous-system syphilis in that he has a background and case experience which

have given him a view of the whole life picture of the disease. It seems to us that this book offers a basis for more fundamental study of nervous-system syphilis than has as yet been made. It would seem to be of the utmost benefit to every neuropsychiatrist who deals at all with the prevention, care, and treatment of cases of neurosyphilis.

H. C. SOLOMON.

Boston Psychopathic Hospital.

TRAITÉ DE PATHOLOGIE MÉDICALE ET ED THÉRAPEUTIQUE APPLIQUÉE: NEUROLOGIE. Edited by Emile Sergent, L. Ribadeau-Dumas, and L. Babonneix. Paris: A. Maloine et Fils, 1921. 2 vols.

These two volumes on neurology are part of a large system of medicine. The neurological volumes really make up a system of neurology by a number of different neurologists. The list of the contributors to the neurological section appears like a list of "Who's Who in French Neurology": Pierre Marie, Foix, Régnard, André Thomas, Sézary, Mme. Dejerine, Gauckler, Stéphen Chauvet, Guillian, Babonneix, Roger Voisin, Laignel-Lavastine, Froment, Sicard, Tinel, Lhermitte, Crouzon, G. A. Weill, Souques, Chatelin, R. Voisin, Cl. Vincent, Roussy, DeMartel.

One misses the name of Babinski, of course.

The volumes represent an excellent textbook or reference book on the entire subject of neurology, including the new war material. We find of especial interest the question of aphasia, with a discussion of a super-marginal region as an important aphasic center, and a discussion of the recent contributions of Marie, Foix, and Bertrand.

The discussion of hysteria contributed by Clovis Vincent gives a very excellent summary of the French concept of hysteria as developed by Babinski.

Altogether, the books represent a very modern picture of neurology. It is all written in the delightfully simple and systematic fashion of the French. Everything is made very understandable. The work does not represent the profundity of Oppenheim's textbook. It is by no means as rich in references, and therefore will not prove as great a source of information to the expert neurologist as it might otherwise be, but it should still be of great value indeed to the student and the general practitioner, and to the neurologist who wishes to refresh his mind quickly or to get a late point of view on any neurological subject in a brief line.

H. C. SOLOMON.

Boston Psychopathic Hospital.

NOTES AND COMMENTS

Delaware

"In order that the State of Delaware may serve the welfare of its children adequately," a Child Welfare Commission has been created by legislative enactment. The commission is to consist of nine members appointed by the governor. The duties of the commission are thus defined: "To take over and further to develop the child-welfare activities conducted by the Reconstruction Commission of the State of Delaware; to maintain a traveling child-health center to serve the sparsely settled sections of the state; to coöperate with state, county, and local bodies in the development of such child-welfare work as the commission may believe will materially advance the interests of the children of the state; to make every reasonable preparation to transfer various branches of its work as rapidly as possible to appropriate state agencies; to make a study of the needs of children a definite part of its work; and to make recommendations for executive and legislative action in matters relating to children."

Over $300,000 has been granted to the Delaware State Hospital to be expended for permanent improvements.

Idaho

A reception hospital is being constructed at the Idaho state hospital at Blackfoot.

Kansas

Chapter 282, Laws of 1921, authorizes the establishment at the University of Kansas of a Bureau of Child Research. Its activities are to be as follows: "Studying the problems of the child life of the state, including studies as to the diagnosis, treatment, and prevention of delinquency, defectiveness, and dependency; studies in normal inheritance, development, and training; studies of family and community life in their relation to child life."

Michigan

Counties are empowered to provide for the care of their feebleminded and epileptic persons, by the terms of a law passed by the 1921 legislative assembly. The several courts of the state having jurisdiction over proceedings relative to feebleminded and epileptic persons may commit such persons to these county institutions. Reimbursement for their maintenance is made by the state to an amount equal to the cost of maintaining patients in the state institutions.

A State Welfare Department has been created, consisting of a director as its executive head and the following commissions: the State Welfare Commission, the State Hospital Commission, the State Prison Commission, the State Corrections Commission, and the State Institute Commission. The director and members of each commission are to be appointed by the governor with the advice and consent of the senate. The State Welfare Commission is to be the legal successor to the Board of Corrections and Charities. The State Hospital Commission is to be the legal successor to the several boards of trustees and boards of control of the state hospitals for mental diseases and the state institution for epileptics. The State Prison Commission has jurisdiction over the state prison, the reformatory, and the house of correction. Under the jurisdiction of the State Corrections Commission are placed the following institutions: the State Industrial Home for Girls, the Industrial School for Boys, and the Michigan State Training School for Women. The State Institute Commission has control of the state institutions for the deaf, blind, and feebleminded and the state public school. The board of trustees of the State Psychopathic Hospital, after the passage of this act, is to consist of four regents of the University of Michigan, and of four other trustees selected by the governor. The State Psychopathic Hospital is deemed to be within the State Welfare Department for purposes of visitation and inspection, but not for the purpose of controlling the action of its board of trustees, nor for the purpose of exercising any jurisdiction over the management and policy of the hospital.

The Director of the State Welfare Department and the State Hospital Commission, or any member or agent appointed by either, shall have supervisory and visitorial powers over every private hospital, institution, or home in which persons mentally diseased are cared for.

Nebraska

Chapter 240, Laws of 1921, states that minors who in the judgment of the juvenile court are delinquent, dependent, defective, or neglected and require institutional care shall be wards of the state and committed to the custody of the board of control. This law also provides for the appointment of a clinical psychologist who is to conduct investigations and study the problems relating to dependent, defective, and delinquent children.

The names of the state hospitals for mental diseases have been changed by legislative enactment to Lincoln State Hospital, Norfolk State Hospital, and Hastings State Hospital. These hospitals formerly had the phrase "for the insane" in their titles. The name of the state school for mental defectives has been changed from Nebraska

Institution for Feebleminded Youth to Nebraska Institution for the Feebleminded.

By the terms of Chapter 245, Laws of 1921, it is unlawful to admit or maintain any child under sixteen years of age or any pregnant woman in any poorhouse in the state.

Nevada

Chapter 149, Laws of 1921, authorizes the Board of Commissioners of the Nevada Hospital for Mental Diseases to provide suitable quarters for the treatment of ex-service men of the World War who may be suffering from "shell shock" or other mental diseases, and who in the judgment of the superintendent should not be confined with other patients of the hospital.

New Jersey

Chapter 134, Laws of 1921, provides for the retirement with compensation of any person who has been continuously in the employ of the state for a period of twenty-five years. The employee must have reached the age of sixty years and be physically or otherwise incapacitated for service, and the disability must have developed during his term of service. The applicant for retirement must be examined by a physician who must make a report of the disability and state his opinion whether it will continue permanently and prevent the applicant from the performance of his duties. Compensation is to be at the rate of one-half of the average annual salary the employee has been receiving the two years previous to the filing of his resignation.

New Mexico

A State Department of Public Welfare has been created by legislative enactment. It is to consist of a Board of Public Welfare with a Bureau of Public Health, a Bureau of Child Welfare, and whatever other divisions may be necessary. The Board of Public Welfare is to appoint a Director of Child Welfare, who must be a woman of experience and special training in child-welfare work, and a Director of Public Health, who must be a person having experience and special training in sanitary science and public-health work.

North Carolina

A law authorizing the commitment of inebriates was enacted by the 1921 legislature. If any person adjudged to be an incompetent is an inebriate, the clerk hearing the case shall commit him to the department for inebriates at the State Hospital at Raleigh. The term

inebriate is thus defined: "A person so addicted to alcoholic drinks or narcotic drugs as to be a proper subject for restraint, care, and treatment." Inebriates may also be sent to the department for inebriates of the hospital mentioned upon the petition of wife, husband, parent, or child, committee of estate, or a friend, with the affidavit of two reputable physicians.

A law has been enacted which would forbid the issuance of a marriage license except upon a certificate showing, if the applicant is a male, the nonexistence of any venereal disease and of tuberculosis in an infectious form, and that he is not an idiot, imbecile, or of unsound mind. If the applicant is a female, the certificate must show absence of tuberculosis and that she has not been adjudged of unsound mind. The certificate is to be signed by a reputable physician of the county.

A bond issue of over six million dollars has been authorized, one half to be issued in 1921 and the other half in 1922. The fund is to be devoted to the enlargement and permanent improvement of the educational and charitable institutions of the state. The hospitals for mental diseases will receive over one million dollars and the institution for the feebleminded $240,000.

North Dakota

A Children's Code Commission has been created by an act of the 1921 legislature. It consists of seven members appointed by the governor from members of the State Conference of Social Work, the State Federation of Women's Clubs, the State Medical Association, the State Bar Association, the State Educational Association, the State Federation of Labor, and the State Minimum Wage Department. This commission is to study social conditions touching upon the welfare of children and recommend necessary revision and codification of existing laws, and such new laws as are needed. It must make a detailed report with its findings and recommendations to the next legislative assembly and to each succeeding legislature during its period of existence.

South Dakota

Chapter 232, Laws of 1921, provides for the extradition of persons of unsound mind. This law is similar to laws in effect in Illinois, Maryland, Massachusetts, Nevada, Tennessee, Virginia, and Wisconsin.

Vermont

An appropriation of $15,000 has been made for a shelter home, where dependent, neglected, and delinquent children committed to the

care of the Board of Charities and Probation may receive physical and mental examination before being placed in private families.

Chapter 221, Laws of 1921, makes it unlawful to keep any dependent child in a poorhouse, except a child under two years of age with its mother. In cases of emergency an exception is made, but not to exceed ninety days.

In accordance with Chapter 224, Laws of 1921, when a child comes into the custody of a juvenile court, the court, before making a final determination of the case, is empowered to order a physical and mental examination to be made by a competent physician appointed by the court.

Washington

A law to prevent the procreation of persons who are feebleminded, insane, epileptic, habitually criminal, morally degenerate, or sexually perverted who may be inmates of state institutions has been enacted. This law provides for the sterilization of such persons upon the decision of a majority of the Institutional Board of Health of the state, if in their judgment procreation would produce children with an inherited tendency along these lines and if there is no probability that the condition of such persons will improve so as to render procreation advisable, or if the physical or mental condition of such persons will be substantially improved thereby. The superintendent of the institution is then authorized by the board to perform or cause to be performed such type of sterilization as may be deemed best by the board. The purpose of the law is thus stated: "For the betterment of the physical, mental, neural, or psychic condition of the inmate, or to protect society from the menace of procreation by said inmate, and not in any manner as a punitive measure; and no person shall be emasculated under the authority of this act except that such operation shall be found to be necessary to improve the physical, mental, neural, or psychic condition of the inmate." Provision is made for appeal from the decision of the board.

The state of Washington enacted in 1909 a sterilization law that applied only to persons adjudged guilty of carnal abuse of females under ten years of age or of rape, or adjudged to be habitual criminals.

Wyoming

The name of the Wyoming School for Defectives has been changed by law to the Wyoming State Training School.

Chapter 16, Laws of 1921, allows the granting of a divorce when either husband or wife has become incurably insane. However, no

divorce shall be granted unless such insane person has been confined in an institution for the insane for at least five years preceding the commencement of the action for divorce, or unless it shall appear to the court that such insanity is incurable. Furthermore the plaintiff must be a resident of this state, and shall have resided there for one year next preceding the beginning of such action.

Hawaii

A law has been enacted to establish a psychological and psychopathic clinic to investigate the nature, causes, treatment, and consequences of mental disease and defect within the territory. The management of this clinic is to be vested in the Board of Regents of the University of Hawaii. The Board of Regents is empowered to employ a competent person or persons to have charge of the clinic, to conduct investigations, to publish results of such investigations, and to give lectures and other forms of instruction pertaining to mental disease and defect. The clinic will receive for observation or examination persons who come at the request of court judges, of the superintendent of the juvenile industrial schools, of the hospital for mental diseases, of the department of public instruction, or of any other public institution or organization within the territory. Subject to regulations, the clinic may make examinations or investigations at the request of any private, charitable, or benevolent institution or organization, or of any parent or guardian. An appropriation of $15,000 is made for the establishment of the clinic and for its maintenance until July 1, 1923.

Uniform Statistics for Institutions for the Feebleminded

The American Association for the Study of the Feebleminded, at its annual meeting in Chicago in 1919, adopted a resolution that the president of the association appoint a committee on uniform statistics and invite the coöperation of the Bureau of Statistics of the National Committee for Mental Hygiene. The committee thus appointed consisted of the following members: Walter E. Fernald, M.D., Chairman; H. A. Haynes, M.D., F. Kuhlman, Ph.D., George Mogridge, M.D., and J. Morehead Murdoch, M.D. This committee has met with the Bureau of Statistics of the National Committee for Mental Hygiene and given careful consideration to various plans. As an outcome of their deliberations a statistical system for institutions for the feebleminded has been developed and is now being introduced throughout the country. The system was approved by the association at its annual sessions in 1920 and 1921 and is meeting with general favor. It has been in force in two states for some time and many other institutions have signified their willingness to adopt

it. A Statistical Manual containing the association's classification of mental defect and detailed suggestions for the preparation of annual statistics has been published and is being distributed without charge to superintendents of institutions for the feebleminded. In response to many requests that have been received from these institutions, there has been printed a series of schedule cards for records of first admissions, readmissions, discharges, deaths, and transfers. These cards are being supplied at cost to institutions, upon the order of the superintendents. Tabular forms are being prepared which will be distributed without charge to coöperating institutions for the compilation of annual statistics.

Second International Congress of Eugenics

The Second International Congress of Eugenics was held in the American Museum of Natural History, New York City, September 22-28, 1921. The following governments were represented by delegates: Belgium, Brazil, Canada, Cuba, Chile, Costa Rica, Czechoslovakia, Denmark, Guatemala, Nicaragua, Norway, Peru, Salvador, Siam, Uruguay, and Venezuela. England, France, Tunis, Italy, and Mexico were represented by delegates from learned societies and universities.

Many different parts of the United States were represented in the American delegation, which was large. The following states sent official delegates appointed by the governor: Georgia, Iowa, Kansas, Minnesota, Mississippi, Maryland, Nevada, New Jersey, New York, Ohio, and Virginia. The United States Public Health Service also was officially represented.

The formal opening of the Congress was held for delegates and guests on Thursday evening, September 22. Dr. Henry Fairfield Osborne, of the American Museum, President of the Congress, presided and gave the address of welcome. Major Leonard Darwin, President of the Eugenic Education Society of Great Britain and Presiding Officer at the First Eugenics Conference, delivered the opening address on *The Aims and Methods of Eugenic Societies.* Dr. Charles P. Davenpart, of Cold Spring Harbor, founder of the eugenic movement in America, read a paper on *Research in Eugenics.*

For the remaining sessions the Congress met in four sections.

Section I, on Human and Comparative Heredity, held five sessions. The leading address was given by Dr. Lucien Cuénot, of Nancy, France, on *Adaptation and Modern Genetic Conceptions.* The papers presented dealt with investigations in the domain of pure genetics in animals and plants and with studies in human heredity. The rôle that heredity plays in mental traits of the human race was discussed

in the following papers: *Pedigree of Pauper Stocks,* by Mr. E. L. Lidbetter, London, England; *Inheritance of Mental Disorders,* by Dr. A. J. Rosanoff, Clinical Director, Kings Park State Hospital, Kings Park, Long Island, New York; *Inheritance in Mental Disorders,* by Dr. Henry A. Cotton, Medical Director, New Jersey State Hospital, Trenton, N. J.

Section II, on Eugenics and the Human Family, held three sessions. Dr. Lucien March, of Paris, France, gave the leading address on *The Consequences of War and the Birth Rate in France.* Among the papers presented, the following deserve special mention: *Some Scientific Aspects of Genealogy,* by David Starr Jordan, Leland Stanford Junior University, Leland Stanford, California; *Measurement of Family Resemblances in Intellect,* by Dr. E. L. Thorndike, Columbia University; *The War from the Eugenic Point of View,* by Dr. Corrado Gini, Rome, Italy.

Section III, on Human Racial Differences, held two sessions. The opening address was given by Dr. G. V. deLapouge, of Poitiers, France, author of the *Fundamental Laws of Anthropo-sociology, The Social Rôle of the Aryan,* and other treatises, who discussed *Race among Mixed Populations.* Papers were presented dealing with intermarriage between races, race amalagamation, mortality rates among different races, and physical characteristics of races.

Section IV, on Eugenics and the State, held five sessions. Major Leonard Darwin's address on *The Field for Eugenic Reform* gave the keynote to this phase of eugenics. The general thesis of the paper was that the aim of the eugenist is to increase the rate of multiplication of good stocks and to decrease that rate among the less fit. In the United States there are at least 300,000 or 400,000 feebleminded persons, and it is certain that they will pass on this defect to many of their children, while their normal offspring may also be endowed with the power of transmitting it to posterity. Segregation of this class would be one solution of this problem, but the feebleminded individual often attracts affection and his removal from home is frequently resented. Permission to live at home should be granted when all conditions are suitable and when parenthood is impossible. If on further investigation sterilization proved to be harmless, and if it were voluntarily adopted, these things might be allowed to tell in favor of such permission being granted. Major Darwin favored the introduction of sterilization as a voluntary and experimental measure. Turning to the consideration of good qualities, he advocated raising the level of the whole people in regard to their inborn qualities rather than the selection of a number of highly endowed persons who should be induced to marry and encouraged to produce large families. Among the other papers presented, the following deserve special men-

tion: *Some Eugenic Aspect of the Problem of Population,* by Dr. Raymond Pearl, Johns Hopkins University, Baltimore; *Eugenics as a Factor in the Prevention of Mental Disease,* by Dr. Horatio Pollock, New York State Hospital Commission, Albany; *Eugenical Sterilization in the United States,* by Dr. H. H. Laughlin, Eugenic Record Office, Cold Spring Harbor.

In connection with the Congress an exhibit was held from September 22 to October 22 at the American Museum of Natural History. Emphasis was given at this exhibit to the popular aspects of eugenics. Charts, maps, pictures, and models demonstrating eugenic principles were adequately organized for presentation to the general public. From the mental-hygiene viewpoints the exhibits from Waverley and Vineland were especially interesting and instructive.

It was gratifying to note the interest in the Congress shown by the general public. The leading papers gave daily considerable space to the proceedings. The sessions and exhibits were well attended, and the audience took a lively interest in the discussion of the papers. The teachers of special classes of New York City were instructed to attend the meetings of the Congress and various other institutions and social agencies likewise availed themselves of this unusual opportunity and were represented in large numbers.

Hartley Foundation

Public-health, mental-hygiene, and probation work, not only in Connecticut, but also in other states, are the purposes announced by the Hartley Foundation, which was recently granted a special charter by the Connecticut legislature. The foundation held its first meeting, July 19, at Norfolk, and the founder, Mrs. Helen Hartley Jenkins, New York, was chosen president, and her attorney—Robins S. Stoeckel, Norfolk—secretary-treasurer. Dr. Samuel A. Brown, Dean of Bellevue Hospital Medical College, was made a member of the executive committee. The foundation was established in memory of Mrs. Jenkins' father, the late Marcellus Hartley, former head of the Remington Arms Union Metallic Cartridge Company, and the funds made available by Mrs. Jenkins are said to total several millions. The public-health department of the corporation will put its facilities at the disposal of the state or any subdivision of it in case of epidemics or other emergencies. It will carry on mental-hygiene work in connection with prisons, reformatories, and other institutions.

Lectures on Mental Hygiene at the New School of Social Research

A course of lectures of unusual interest and importance on *Mental Hygiene and Its Social Bearings* has been announced by the New

School of Social Research, 465 West 23d Street, New York City. Sixteen well-known psychiatrists will combine in giving the course, each lecturer dealing with a phase of the subject to which he has given special attention. Throughout the course the social significance of the various mental-disease groups will be emphasized. Only so much of the medical aspect of the groups will be given as is necessary in the forming of a background for the discussion of the social factors involved.

The course will open October 10. The list of lecturers and their subjects are as follows:

Lecturer	*General Subject*
Dr. Thomas W. Salmon	Introduction.
Dr. John T. MacCurdy	Medical Psychology: Biological Position of Mental Function. Reaction Types. Experimental Mental Methods. The Unconscious. Dynamic Theories. Psychoanalysis. Psychology of the Emotions.
Dr. Clarence O. Cheney	Personality.
Dr. L. Pierce Clark	Hysteria. Anxiety States. Compulsions and Obsessions. Neurotic Adaptations. Traumatic Neuroses. Epilepsy.
Dr. Harry C. Solomon	General Paresis and Syphilis.
Dr. Adolf Meyer	Trauma.
Dr. William A. White	Arteriosclerosis and Senility. Apoplexy and Aphasia.
Dr. George H. Kirby	Alcoholic and Drug Psychoses and Addiction.
Dr. William A. White	Paranoia. Dementia Praecox. Psychology of Adolescence.
Dr. John T. MacCurdy	Involutional Reactions. Psychology of Senescence.

Dr. George H. Kirby	Manic-depressive Insanity.
Dr. Morton Prince	Psychology of Spiritism.
Dr. Bernard Glueck	Psychopathic Personality. Delinquency.
Dr. Walter E. Fernald	Feeblemindedness.
Dr. V. V. Anderson	Special Problems in Feeblemindedness.
Dr. John T. MacCurdy	Psychology of War: Mobilization. Warfare. Demobilization.
Dr. Pearce Bailey	Social Value of the Neuropsychiatric Examinations in the Army.
Dr. Frankwood E. Williams	Mental Hygiene and Education. Mental Hygiene and Industry. Function of Psychiatric Agencies.
Dr. Adolf Meyer	Psychiatry and Eugenics. Psychiatry and Sex Hygiene.
Dr. William Healy	Psychiatric Problems of the Individual.
Dr. Thomas W. Salmon	Relation of Psychiatry to Future Development of Community Life.

Other courses announced for this year by the New School for Social Research which will be of interest to mental hygienists are the *Biological Basis of Personality and Conduct* by Edward G. Conklin; *Studies in Social Behavior* by Everett Dean Martin; *The History of the Human Mind* and *The Modern Historical Antecedents of the Present Intellectual Outlook* by James Harvey Robinson; *Psychological Problems of Educational Reconstruction* by Joseph K. Hart.

Smith College Training School for Social Work

The Smith College Training School for Social Work completed its third year on September first. Begun as a war emergency to provide psychiatric social workers for military hospitals, the school has been continued and its scope enlarged as the type of work offered has seemed to meet a growing need in the field of social work. During

the past summer courses were given leading to certificates or diplomas in psychiatric Social Work, Medical Social Work, and Community Service. Those enrolled were graduate students from Smith College, Wellesley, Vassar, Bryn Mawr, Mount Holyoke, and various state universities; sixteen states were represented. The teaching staff was composed of F. Stuart Chapin, Director, of Smith College; Mary C. Jarrett, formerly Chief of Social Service, Boston Psychopathic Hospital, Associate Director; Everett Kimball; David Camp Rogers; Chase Going Woodhouse; James H. Sinclair, of Smith College; Dr. Florence L. Meredith, Professor of Hygiene, Woman's Medical College of Pennsylvania; Anna F. Davies, Head Resident, Philadelphia College Settlement; Dr. John A. Houston, Superintendent, Northampton State Hospital; Dr. Frankwood E. Williams, Associate Medical Director, The National Committee for Mental Hygiene. Among the visiting lecturers were Dr. Walter E. Fernald, Dr. C. Macfie Campbell, Dr. Walter E. Timme, Dr. L. Pierce Clark, Dr. A. A. Brill, Prof. William H. Burnham, Dr. Edith R. Spaulding, Dr. A. Warren Stearns, Dr. A. Myerson, Dr. Wade Wright, Dr. Woods Hutchinson, Dr. Harry C. Solomon, Mr. Porter R. Lee, Miss Mary Van Kleeck, Miss Ida M. Cannon, Mr. Michael M. Davis, Jr., and Prof. James H. Tufts.

Lectures on Social Behavior at Boston University

Professor Ernest R. Groves, of the Department of Social Sciences of Boston University, will give this year a series of lectures on *Social Behavior and Human Progress* as one of the Evening Extension Courses of Boston University. The course will consider man's social behavior in its relation to the problem of social improvement and will aim to give teacher, parent, student, and citizen a survey of the contemporary thinking and undertakings that throw light upon the task of advancing individual and social standards of life. Among the topics to be considered are: The background of social behavior and some control problems; Recent sociological thinking with reference to social progress, including Conklin, Patten, Korzybski, Todd, Ross, Dealey, and Sidis; Recent contributions to social progress, including mental hygiene, psychoanalysis, and the correction of social maladjustment, Adler's inferiority complex, and the task of social compensation and humanizing of industry.

Need of a New Psychopathic Hospital for Connecticut

On August 16th Governor Lake appointed a special commission to investigate the need of a new state psychopathic hospital. The commission consists of Dr. M. C. Winternitz, Dean of Yale School of

Medicine, New Haven; Dr. Paul Waterman, Hartford; Dr. C. Floyd Haviland, Superintendent, Connecticut State Hospital, Middletown; George S. Palmer, New London; and John Cavanaugh, South Norwalk.

Mental Hygiene Division, State Department of Health

In February, 1920, through the efforts of the Connecticut Society for Mental Hygiene, a Division of Mental Hygiene was established by the State Department of Health of Connecticut. This was the first official recognition of the need of mental-hygiene activities by any state department of health. The 1921 legislature has appropriated $3,000.00 a year, for a period of two years, for the division, which will devote its resources to a demonstration of how certain mental patients, especially those paroled from state hospitals, may best be cared for in the community. The division has been conducted by Dr. William B. Terhune, Medical Director of the Connecticut Society for Mental Hygiene, under whose direction it will continue. Mrs. Helen K. Satterthwaite, of New Haven, has been engaged as field agent.

Mental Hygiene Society in Louisville

A society for mental hygiene has been organized in Louisville, Kentucky. A directorate of thirty members has been elected, from which an executive committee has been chosen. A salaried secretary has been appointed. The membership of the Louisville society may be drawn from the entire state of Kentucky, although the Louisville activities of the society are financed by the Welfare League. At a recent meeting, the executive committee approved of a budget for 1922 calling for six thousand dollars.

One of the activities of the society will be the supervision of the psychological clinic which serves local social agencies. At the request of the executive committee of the Louisville Society, the National Committee for Mental Hygiene has consented to make a mental-hygiene survey in Louisville.

The officers of the new society are: Dr. W. E. Gardner, President; Dr. Phillip Barbour, First Vice-President; Dr. James Bruce, Second Vice-President; Mrs. Emma Hegan, Third Vice-President; Dr. H. B. Scott, Third Vice-President; Frank S. Fearing, Secretary.

CURRENT BIBLIOGRAPHY *

JUNE–SEPTEMBER 1921

Compiled by
DOROTHY E. MORRISON
The National Committee for Mental Hygiene

Abbot, E. S., M.D. Outline for a state society of mental hygiene. Mental hygiene, v. 5, p. 574-86, July 1921.

Anderson, V. V., M.D. Mental deficiency. Cincinnati san. bull., v. 5, no. 6, p. 5-8, June 10, 1921.

Barrett, A. M., M.D. The state psychopathic hospital. Mental hygiene, v. 5, p. 545-55, July 1921.

Bevis, W. M., M.D. Psychological traits of the southern negro, with observations as to some of his psychoses. Amer. jour. psychiat., v. 1, p. 69-78, July 1921.

Bloedorn, W. A., M.D. Hysteria in the naval service. U. S. naval med. bull., v. 15, p. 515-21, July 1921.

Brown, Sanger, 2d, M.D. Nervous symptoms in ex-soldiers. Med. insur. and health circ., v. 30, p. 401-06, July 1921.

Brown, Sanger, 2d, M.D. Some special educational needs for children. N. Y. state jour. med., v. 21, p. 261-64, July 1921. Also in Health news, n. s., v. 16, p. 138-44, July 1921.

Burr, C. W., M.D. Nervous child. N. Y. med. jour, v. 114, p. 205-09, Aug. 17, 1921.

Campbell, C. M., M.D. Mental hygiene in industry. Mental hygiene, v. 5, p. 468-78, July 1921.

Carter, C. E., M.D. Mental health of the child. Mother and child, v. 2, p. 352-58, Aug. 1921.

Cheney, C. O., M.D. Significance of spiritualism. Mental hygiene, v. 5, p. 529-35, July 1921.

Clark, L. P., M.D. Psychological study of some mental defects in the normal dull adolescent. Med. rec., v. 99, p. 991-96, June 11, 1921.

Copp, Owen, M.D. Some problems confronting the American Medico-Psychological Association; presidential address. Amer. jour. psychiat., v. 1, p. 1-13, July 1921.

Daspit, Henry, M.D. Statistical study of three thousand cases of mental diseases. New Orleans med. surg. jour., v. 74, p. 84-90, 305, Aug., Oct. 1921.

Dauphinee, A. J. Vancouver's subnormal problem. Can. jour. mental hygiene, v. 3, p. 117-24, April 1921.

Dunton, W. R., M.D. Development of reconstruction therapy. Trained nurse, v. 67, p. 16-21, July 1921.

Farrell, E. E. Selection of children for psychological and psychiatric examination. Ungraded, v. 6, p. 25-30, Nov. 1920.

Fisher, Boyd. Has mental hygiene a practical use in industry? Mental hygiene, v. 5, p. 479-98, July 1921.

Furbush, E. M. Social facts relative to patients with mental diseases. Mental hygiene, v. 5, p. 587-611, July 1921.

Gage, Harriet. Place of psychiatric social work in the social service field. Hosp. soc. serv., v. 4, p. 143-49, Sept. 1921.

Glueck, Bernard, M.D. Newer concepts of psychiatry and kindred subjects. Paper read at meeting of Ward's Island Psychiatrical society, April 27, 1921.

Goddard, H. H. Human efficiency and levels of intelligence. Princeton; Univ. press, 1920. 128 p.

Groszmann, M. P. E. Personality in the making. N. Y. med. jour., v. 114, p. 215-23, Aug. 17, 1921.

Hall, H. J., M.D. High-grade neurasthenic. Bost. med. surg. jour., v. 185, p. 232-35, Aug. 25, 1921.

Harding, J. R. The segregable delinquent. Jour. crim. law and crim., v. 12, p. 267-74, Aug. 1921.

Herbert, S., M.D. Post-war neurosis.

* This bibliography is uncritical and does not include articles or books of a technical or clinical nature.

Lancet, v. 200, p. 1238-39, June 11, 1921.

Hoag, E. B., M.D. Survey of the Boys' Industrial School, Hawaii. Honolulu, 1921. 14 p.

Hughes, Robert. "Ascertainment" of mentally defective children. Med. off., v. 26, p. 51-52, July 30, 1921.

Jarrett, M. C. Educational value of psychiatric social work. Mental hygiene, v. 5, p. 509-18, July 1921.

Jarrett, M. C. Smith College conducts a training school for social work. Mod. hosp., v. 16, p. 566-68, June 1921.

Kenworthy, M. E., M.D. The mental hygiene aspects of illegitimacy. Mental hygiene, v. 5, p. 499-508, July 1921.

Kenworthy, M. E., M.D. Problems of personality in disease. N. Y. med. jour., v. 114, p. 211-14, Aug. 17, 1921.

Kern, W. B. Acute manic-depressive psychoses and their early treatment. Neb. state jour. med., May 1921.

Laird, D. A. Connotations as a factor in the mental health of the community. Amer. jour. psychiat., v. 1, p. 41-68, July 1921.

Laughlin, H. H. The socially inadequate: how shall we designate and sort them? Amer. jour. sociol., v. 27, p. 54-70, July 1921.

May, J. V., M.D. Laws controlling commitments to state hospitals for mental diseases. Mental hygiene, v. 5, p. 536-44, July 1921.

Mental hygiene bulletin (Canadian); occupational therapy number, March 1921. Mental hygiene bulletin, v. 1, p. 18-31, March 1921.

Mental hygiene survey of Province of Nova Scotia. Canad. jour. mental hygiene, v. 3, p. 3-48, April 1921.

Meyer, Adolf, M.D. Integrative function of a hospital laboratory; retrospect and prospect. State hosp. quar., v. 6, p. 445-51, Aug. 1921.

Miller, J. A., M.D. Suggested form of treatment for mental deficiency in children. N. Y. med. jour., v. 114, p. 231-32, Aug. 17, 1921.

Mills, C. K., M.D. Occultism with particular reference to some phases of spiritism. Amer. jour. med. sci., v. 162, p. 113-23, July 1921.

Morphy, A. G., M.D., and W. D. Tait. Mental hygiene survey of Montreal protestant schools. Canad. jour. mental hygiene, v. 3, p. 49-94, April 1921.

Mott, F. W., M.D. Influence of song on mind and body. Jour. ment. sci., v. 67, p. 162-72, April 1921.

Myers, G. C. A morale ungraded class of illiterate soldiers. Ungraded, v. 6, p. 49-54, Dec. 1920.

Pollock, H. M. Occupational therapy in the state hospitals of Illinois. Address delivered at Staff conferences of 12 state hospitals, 1921.

Pollock, H. M. Records and statistics in occupational therapy. Mental hygiene, v. 5, p. 566-73, July 1921.

Pollock, H. M. Research in psychiatry. State hosp. quar., v. 6, p. 514-17, Aug. 1921.

Pollock, H. M. Work as a cure for mental disease. State service, July 1921.

Pratt, E. J. Application of the Binet-Simon tests (Stanford revision) to a Toronto public school. Canad. jour. mental hygiene, v. 3, p. 95-116, April 1921.

Pressey, S. L. Comparison of a girls' reform school, attendants at a state hospital for the insane and public school children. Jour. crim. law and crim., v. 12, p. 258-66, Aug. 1921.

Prince, Morton, M.D. Structure and dynamic elements of human personality. Jour. abnorm. psychol., v. 15, p. 403-13, Dec. 1920-March 1921.

Psychology of happiness, by A. E. M. Brit. jour. nursing, v. 67, p. 80-81, Aug. 6, 1921.

Read, C. S., M.D. Familial care of the insane. Jour. ment. sci., v. 67, p. 186-95, April 1921.

Relations of psychiatry to medicine. Editorial in Med. rec., v. 99, p. 1062, June 18, 1921.

Richards, E. L., M.D. Rôle of situation in psychopathological conditions. Mental hygiene, v. 5, p. 449-67, July 1921.

Ridgway, R. F. L., M.D. Recreation for mental cases. Amer. jour. psychiat., v. 1, p. 87-95, July 1921.

Russ-Baker, Frances. Children's fears. N. Y. med. jour., v. 114, p. 229-30, Aug. 17, 1921.

Singer, H. D., M.D. Mental health clinics. Mental hygiene, v. 5, p. 519-28, July 1921.

Skidelsky, B. C. Effect of recreation on the nervous system. Nation's health, v. 3, p. 331-33, June 1921.

Solomon, H. C., M.D., and M. H. Study of the economic status of forty-one paretic patients and their families. Mental hygiene, v. 5, p. 556-65, July 1921.

Special study of physical and mental conditions of children of the pre-school

age, conducted by the Bureau of child hygiene of the N. Y. City Dept. of Health and other organizations. N. Y. (City) Dept. health. Weekly bull., n. s., v. 10, p. 241-44, July 30, 1921.

Stanley, L. L., M.D. Narcotic drugs and crime. Jour. crim. law and crim., v. 12, p. 110-15, May 1921.

Stearns, A. W., M.D., and J. V. Chapman. The kind of men in state prison. Jour. abnorm. psychol., v. 15, p. 335-49, Dec. 1920-March 1921.

Sutton, B. E. Occupational therapy at Kankakee, Illinois, state hospital. State hosp. quar., v. 6, p. 547-55, Aug. 1921.

Talmey, B. S., M.D. Psychology of music. Amer. med., n. s., v. 16, p. 347-61, July 1921

Thoughts on problems arising in connection with the treatment of the insane. Editorial in Canad. med. assoc. jour., v. 11, p. 274-75, April 1921.

Townsend, T. I., M.D. Mental hygiene. Paper read at meeting of Binghamton academy of medicine, June 21, 1921.

Tracy, Frederick. Psychology of adolescence. N. Y., Macmillan, 1921. 246 p.

Typical provision for exceptional pupils; special classes for gifted children, for normal pupils retarded, and for dullards. School life, v. 6, p. 6, June 15, 1921.

Unsworth, C. V., M.D. Some observations as to prognosis in insanity. New Orleans med. surg. jour., v. 74, p. 84-90, Aug. 1921.

Watts, Frank. Intelligence tests. Child, v. 11, p. 257-67, June 1921.

DIRECTORY OF COMMITTEES AND SOCIETIES FOR MENTAL HYGIENE

National Organizations

National Committee for Mental Hygiene, Inc.
370 Seventh Avenue, New York City
Dr. Thos. W. Salmon, Medical Director
Dr. F. E. Williams, Dr. V. V. Anderson, Associate Medical Directors
Dr. C. J. D'Alton, Exec. Assistant
Clifford W. Beers, Secretary

Canadian National Committee for Mental Hygiene
102 College Street, Toronto, Canada
Dr. C. K. Clarke, Medical Director
Dr. C. M. Hincks, Associate Medical Director and Secretary
Dr. Gordon S. Mundie, Associate Medical Director

State Organizations

Alabama Society for Mental Hygiene
Dr. W. D. Partlow, Secretary, Tuscaloosa, Alabama

California Society for Mental Hygiene
Miss Julia George, Secretary
1136 Eddy Street, San Francisco, Cal.

Connecticut Society for Mental Hygiene
39 Church Street, New Haven, Conn.
Dr. Wm. B. Terhune, Medical Director
Mrs. Helen M. Ireland, Secretary

District of Columbia Society for Mental Hygiene
Dr. D. Percy Hickling, Secretary
1305 Rhode Island Avenue, Washington, D. C.

Georgia Society for Mental Hygiene
In process of organization
Dr. N. M. Owensby, Secretary.
Peters Building, Atlanta, Ga.

Illinois Society for Mental Hygiene
5 North Wabash Avenue, Chicago, Ill.
Dr. Ralph P. Truitt, Medical Director

Indiana Society for Mental Hygiene
Paul L. Kirby, Secretary
88 Baldwin Block, Indianapolis

Iowa Society for Mental Hygiene
(Not yet active.)

Kansas Society for Mental Hygiene
Dr. Florence B. Sherbon, Secretary
Mulvane Building, Topeka, Kansas

Louisiana Society for Mental Hygiene
Dr. Maud Loeber, Secretary
1424 Milan Street, New Orleans, La.

Mental Hygiene Society of Maryland
130 So. Calvert Street, Baltimore, Md.
Dr. Chas. B. Thompson, Exec. Secretary

Massachusetts Society for Mental Hygiene
1133 Kimball Building, 18 Tremont Street, Boston, Mass.
Dr. A. Warren Stearns, Exec. Secretary

Maine Society for Mental Hygiene
In process of organization. Address Dr. F. C. Tyson, Augusta, Maine

Mississippi Society for Mental Hygiene
Dr. J. H. Fox, Secretary
Jackson, Mississippi

Missouri Society for Mental Hygiene
Dr. James F. McFadden, Secretary
Humboldt Building, St. Louis, Mo.

Committee on Mental Hygiene of the New York State Charities Aid Association
105 East 22d Street, New York City
George A. Hastings, Exec. Secretary
Mrs. Margaret J. Powers, Social Service Director

North Carolina Society for Mental Hygiene
Dr. Albert Anderson, Secretary
Raleigh, N. C.

Oregon Society for Mental Hygiene
Professor Samuel C. Kohs, Secretary
Portland, Oregon

Committee on Mental Hygiene of the Public Charities Association of Pennsylvania
419 South 15th Street, Philadelphia, Pa.
Dr. E. Stanley Abbot, Medical Director
Norbert J. Melville, Associate in Psychology
Kenneth L. M. Pray, Secretary

Rhode Island Society for Mental Hygiene
Dr. Frederick J. Farnell, Secretary
335 Angell Street, Providence, R. I.

Tennessee Society for Mental Hygiene
C. C. Menzler, Secretary
Nashville, Tenn.

Virginia Society for Mental Hygiene
Dr. Wiliam F. Drewry
Petersburg, Virginia

Members and Directors

of

THE NATIONAL COMMITTEE FOR MENTAL HYGIENE, INC.

(Directors indicated by asterisks before their names.)

Mrs. Milo M. Acker, Hornell, N. Y.
Jane Addams, Chicago
Dr. Herman M. Adler, Chicago
*Edwin A. Alderman, Charlottesville, Va.
Harriet Bailey, Bangor, Me.
*Dr. Pearce Bailey, New York
Dr. Charles P. Bancroft, Concord, N. H.
*Otto T. Bannard, New York
*Dr. Lewellys F. Barker, Baltimore
Dr. Albert M. Barrett, Ann Arbor, Mich.
David P. Barrows, Berkeley, Cal.
Dr. Clara Barrus, West Park, N. Y.
Dr. Herman M. Biggs, New York
Dr. Frank Billings, Chicago
Dr. Robert H. Bishop, Cleveland
Dr. Malcolm A. Bliss, St. Louis
Dr. Rupert Blue, Washington
*Dr. George Blumer, New Haven
*Dr. George Adler Blumer, Providence
Dr. Eugene D. Bondurant, Mobile, Ala.
*Dr. Samuel A. Brown, New York
Dr. Edward N. Brush, Baltimore
William H. Burnham, Worcester
Nicholas Murray Butler, New York
*Dr. C. Macfie Campbell, Boston
Dr. Louis Casamajor, New York
F. Stuart Chapin, Northampton, Mass.
*Russell H. Chittenden, New Haven
Dr. Edmund A. Christian, Pontiac, Mich.
*Dr. L. Pierce Clark, New York
*Dr. William B. Coley, New York
*Dr. Owen Copp, Philadelphia
Dr. George W. Crile, Cleveland
Dr. Harvey Cushing, Boston
*Dr. Charles L. Dana, New York
*C. B. Davenport, Cold Spring Harbor
Dr. George Donohoe, Cherokee, Iowa
*Stephen P. Duggan, New York
Mrs. William F. Dummer, Chicago
Dr. David L. Edsall, Boston
*Charles W. Eliot, Cambridge
Dr. Charles P. Emerson, Indianapolis
Dr. Haven Emerson, New York
Dr. Livingston Farrand, Ithaca
Elizabeth E. Farrell, New York
W. H. P. Faunce, Providence
Katherine S. Felton, San Francisco
*Dr. Walter E. Fernald, Waverley, Mass.
John H. Finley, New York
Dr. J. M. T. Finney, Baltimore
Irving Fisher, New Haven
*Matthew C. Fleming, New York
*Homer Folks, New York
Raymond B. Fosdick, New York
Lee K. Frankel, New York
Dr. Charles H. Frazier, Philadelphia
Dr. C. Lincoln Furbush, Philadelphia
Francis D. Gallatin, New York
Dr. Arnold Gesell, New Haven
Dr. Bernard Glueck, New York
Dr. J. E. Goldthwait, Boston
Dr. S. S. Goldwater, New York
Dr. Menas S. Gregory, New York
Arthur T. Hadley, New Haven
Dr. Arthur S. Hamilton, Minneapolis
Learned Hand, New York
Mrs. E. Henry Harriman, New York
Dr. C. Floyd Haviland, Middletown, Conn.
Dr. Harley A. Haynes, Lapeer, Mich.
Dr. William Healy, Boston
Dr. Arthur P. Herring, Baltimore
Frederick C. Hicks, Cincinnati
Charles W. Hoffman, Cincinnati
*William J. Hoggson, Greenwich, Conn.
Dr. L. Emmett Holt, New York
Franklin C. Hoyt, New York
Surg. Gen. M. W. Ireland, Washington
*Dr. Walter B. James, New York
Mrs. William James, Cambridge
Mrs. Helen Hartley Jenkins, New York
Harry Pratt Judson, Chicago
Dr. Charles G. Kerley, New York
*Dr. George H. Kirby, New York
Franklin B. Kirkbride, New York
James H. Kirkland, Nashville
Dr. George M. Kline, Boston
Dr. Augustus S. Knight, Gladstone, N. J.
Julia C. Lathrop, Rockford, Ill.
Burdette G. Lewis, Trenton, N. J.
Adolph Lewisohn, New York
Ernest H. Lindley, Lawrence, Kansas
*Samuel McCune Lindsay, New York
Dr. Charles S. Little, Thiells, N. Y.
Dr. William F. Lorenz, Madison, Wis.
Tracy W. McGregor, Detroit
George P. McLean, Simsbury, Conn.
Henry N. MacCracken, Poughkeepsie, N. Y.
Dr. Carlos F. MacDonald, New York
V. Everit Macy, Scarborough, N. Y.
Richard I. Manning, Columbia, S. C.

MARCUS M. MARKS, New York
MAUDE E. MINOR, New York
DR. HENRY W. MITCHELL, Warren, Pa.
DR. GEORGE A. MOLEEN, Denver, Col.
MRS. WILLIAM S. MONROE, Chicago
DWIGHT W. MORROW, Englewood, N. J.
DR. J. MONTGOMERY MOSHER, Albany
DR. J. MURDOCK, Polk, Pa.
J. PRENTICE MURPHY, Philadelphia
WILLIAM A. NEILSON, Northampton, Mass.
DR. FRANK P. NORBURY, Jacksonville, Ill.
DR. SAMUEL T. ORTON, Iowa City
WILLIAM CHURCH OSBORN, New York
HARRY V. OSBORNE, Newark, N. J.
DR. HERMAN OSTRANDER, Kalamazoo, Mich.
DR. WILLIAM H. PARK, New York
*DR. STEWART PATON, Princeton
DR. HUGH T. PATRICK, Chicago
DR. FREDERICK PETERSON, New York
HENRY PHIPPS, New York
GIFFORD PINCHOT, Washington
ROSCOE POUND, Cambridge
DR. M. P. RAVENEL, Columbia, Mo.
RUSH RHEES, Rochester, N. Y.
FLORENCE M. RHETT, New York
DR. ROBERT L. RICHARDS, San Francisco, Cal.
DR. AUSTIN F. RIGGS, Stockbridge, Mass.
DR. MILTON J. ROSENAU, Boston
IRA C. ROTHGERBER, Denver, Col.
*MRS CHARLES C. RUMSEY, Wheatley Hills
*DR. WILLIAM L. RUSSELL, White Plains
*DR. BERNARD SACHS, New York
JACOB GOULD SCHURMAN, Ithaca
DR. SIDNEY I. SCHWAB, St. Louis, Mo.
CARL E. SEASHORE, Iowa City, Iowa
EDWARD W. SHELDON, New York
DR. H. DOUGLAS SINGER, Kankakee, Ill.
DR. EDITH R. SPAULDING, New York
DR. M. ALLEN STARR, New York
DR. HENRY R. STEDMAN, Brookline, Mass.
*ANSON PHELPS STOKES, Lenox, Mass.
DR. CHARLES F. STOKES, New York
DR. FREDERICK TILNEY, New York
HOWARD B. TUTTLE, Naugatuck, Conn.
*VICTOR MORRIS TYLER, New Haven
DR. FORREST C. TYSON, Augusta, Me.
*MRS. WILLIAM K. VANDERBILT, New York
HENRY VAN DYKE, Princeton
DR. HENRY P. WALCOTT, Cambridge
LILLIAN D. WALD, New York
DR. GEORGE L. WALLACE, Wrentham, Mass.
*DR. WILLIAM H. WELCH, Baltimore
DR. WILLIAM A. WHITE, Washington
DR. RAY LYMAN WILBUR, Stanford, Cal.
DR. HENRY SMITH WILLIAMS, New York
DR. C. E. A. WINSLOW, New Haven
ARTHUR WOODS, New York
ROBERT A. WOODS, Boston
HOWELL WRIGHT, Cleveland
*ROBERT M. YERKES, Washington
DR. EDWIN G. ZABRISKIE, New York